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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
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Match Length DB ID
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4 (Search time 29.22 Seconds)
95.032 Million cell updates/sec
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Listing first 45 summaries
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Copyright (c) 1993 - 2000 Compugen Etd.
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AAY91212
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AAY50895
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Canine immunoglobi
Antibody 15A.2 gre
Antibody 15A.2 hum
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Antibody 15A.2 swi
Optimised IgE-CH3
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Antibody 15A.2 bin
Antibody 15A.2 can
Modified human IgE
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                                                                                                                                                                                                                                                                                                             N-PSDB; AAT85651.
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Giman protein from	22000660	Ş	-	2	
IgE peptide #16.	AAB51038	22	12	.7	
Peptide Pl3 derive	AAU16847	22	12	7	
Human IgE C epsilo	AAB26516	21	12	7	
L humai	ABG20283	22	23	27.9	8
lde #4 hi	AAR72687	16	22	7	
de P130	AAU16850	22	14	.7	
Human IgE C epsilo	AAB26519	21	14	.7	
ic	AAY69579	21	14	.0	
Antibody 15A.2 bin	AAY50892	21	9	.00	
15	AAY 50891	21	9	.00	
	AAY 69600	21	9	.00	
ant	AAY 69599	21	9	.00	
5	AAY50899	21	15	9	
Optimised IgE-CH3	AAY 80001	21	25	0	
54	AAY 50900	21	16	0	
ώ	AAU16848	22	12	0	
E C e	AAB26517	21	12	.0	
Peptide #5258 enco	AAM31221	22	20	2	
ne n	AAM70931	22	20	2	
œ.	AAM58439	22	20	2	
Peptide #5328 enco	ABB37822	22	20	2	
Ē	AAY80048	21	25	w	
	AAU16849	22	13	7	
o	AAB26518	21	13	.7	
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timised IqE-CH3		21	25	6	
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ALIGNMENTS

22 WWWOODO

Human protein trag

AAW24102 standard; peptide; 20 AA

Canine immunoglobin E peptide 5.

Immunoglobulin E; IgE; anti-canine IgE antibody; allergy; canine; dog

95JP-0334381

Canine immunoglobulin E peptide fragment and related DNA - useful for the preparation of anti-canine immunoglobulin E antibody

AAW24098-106 are peptide fragments containing at least 5 continuous amino acids of the partial canine immunoglobulin E (IgE) protein shown

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8888
                                                                                                                                                                                                                                                                   This invention describes a royal binding protein which specifically binds to mattree entered free or Be cell bound 152, and which doesn't bind to day went that 352 its bound to mest calls. The peptide products of the other was the cell bound 152 and which doesn't bind to day went to the cell bound 152 bindings with the west bound to the cell bound 152 bindings within the west boundaries of the cell boundaries and the cell boundaries and the second to be roomed as pharmaceutical compession, preferrably with a dilinerit, which can be used for prophylatal or treatment of canine altery that which is the cell boundaries and the method of the waterings and the cell boundaries are set of the cell boundaries.
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                                                                                                                                                                                                           sequence
                                                                                                                                                                                                                                                      invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig 6; 30pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Binding proteins used for treatment or prophylaxis of canine allergy
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2 crvthphlpkdivrsi 17
                                                                                                                      Local Similarity
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                                                       1 CRYTHPHLPKDIVRSI 18
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                                                                                                                  100.0%; Pred. No. 5.2e-0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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            Immnoglobulin E. 1gE. egelion heavy chain, antigenic, antigen;
immnogenic; immnostimulatory; carrier protein, helper T cell epitope;
antibody; allergy; allergic disease; immnisation; anti-allergic;
anti-anphylactic; anti-astmantic; astma; anaphylaxis; dermatitis.
                                                                                                                      Optimised IgE-CH3 domain antigen peptide for dog IgE.
                                                                                                                                                             15-MAY-2000 (first entry)
                                                                                                                                                                                                                AAY79999;
                                                                                                                                                                                                                                                      AAY79999 standard; Peptide; 25 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       invention have anti-allergic activity. The antibodies bind to define deplices on free or 8-call bond fig Bniceolars which have an important role in altergic reaction. The specific binding protests are used to produce a phrameountuch composition, preferably with altergic continuat, which can be used for prophylaxis or treatment of conine altergy.

ANY-8097-190900 represent pepticle almospes used in the serbod of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention describes a novel binding protein which specifically binds to native canine free or 8 -cell bound igE, and which doesn't bind to ligh when the ligh is bound to mast cells. The peptide products of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig 7; 30pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Binding proteins used for treatment or prophylaxis of canine allergy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antibody 15A.2 canine IgE binding epitope 1.
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                                                                                                                                                                                                                                                                                                                                                                                                           1 CRYTHPHLPKDIVRSI 16
                                                                                                                                                                                                                                                                                                                                                                crvthphlpkdivrs1 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 89;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Canine immunoglobin E peptide 6.
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                                                                                                                                                                                                                                                                                                                                                         Canis tamiliaris
                                                                                                                                                                                                                                                                                                                                                                                                                        Immunoglobulin E; IgE; anti-canine IgE antibody; allergy; canine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW24103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW24103 standard; peptide; 20 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antigenic peptides (I). (I) have anti-allergic, anti-anaphylactic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 99; 155pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for immunization against allergy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-DEC-1999
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                               95JP-0334381
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100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21; Length 25;
8e-07;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Marches
                                       This invention describes a novel binding protein which specifically binds to native cannie free or se-cell bound 10; and which downer bind to ago when the AFE 18 bound to mast cells file peptide products of the petides on free of excell bound 10; and the petides produced to the petides on free of excell bound 10; period the whole boursed to the second the second the period to be about the second to be used to produce a pharmaceutical competition, preferably with a dilment, which can be used for prophylaxis or treatment of contine altery, which of the period for prophylaxis or treatment of contine altery.
                       invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 7; 30pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Binding proteins used for treatment or prophylaxis of canine allergy -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI: 2000-040833/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lawton R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (IDEX-) IDEXX LAB INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-APR-1998;
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epitope; prophylaxis; treatment; mimotope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibody 15A.2 green monkey IgE binding epitope 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24 - FEB - 2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ANR4098-106 are peptide fregments containing at least 5 continuous maino acids of the partial canine immunglobulin E (198) protein shown in ANR4099. The peptides are used for the preparation of anti-canine ign anti-body. The peptides are used for the seast for the diagnosts is a number of the contract of the contract
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100.0%; Pred. No.
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                                 AAY80000 standard; Peptide; 25 AA
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epitope: prophylaxis; treatment; mimotope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY50895 standard; peptide; 17 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 7; 30pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-040833/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lawton R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EP957111-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antibody 15A.2 human IgE binding epitope 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-FEB-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY50895
                                                                                                                                                                                                                                                                                                                                                 Local Similarity
hes 11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                              1 CRVTHPHLPKDIVRS 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 crvthphlpralvrs 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CRVTHPHLPKDIVRS 15
                                                                                                                                                                                                          2 crythphlpralmrs 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mermer B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0058331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99EP-0107035
                                                                                                                                                                                                                                                                                                                                                                                   73.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Francoeur G;
                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 0.00065;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 72; DB 21;
Pred. No. 0.00022;
                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           critic present invention describes imminoglobalin & (198)-did domain cristicalis peptides (1). (1) Menore antializagic, onti-amphylactic and antiasthetic properties. (1) Menore polyconal antibodies page and antiasthetic properties. (1) Menore polyconal antibodies page and antiasthetic properties. (1) Menore polyconal antibodies page and antiasthetic and the sophila conditions of the properties and described of mate calls and besophilated and the properties of the state of the state
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                 Antibody 15A.2 swine IgE binding epitope 1.
                                                                                                            24-FEB-2000
                                                                                                                                                                               86805XVV
                                                                                                                                                                                                                                            AAY50898 standard; peptide; 17 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 99; 155pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for immunication against allergy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New antigenic peptide from the CH3 domain of immunoglobulin E, fusions
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunoglobulin E: IgE: epsilon heavy chain: antigenic: antigen:
immunogenic: immunostimulatory: carrier protein: helper T cell epitope:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Optimised IgB-CH3 domain antigen peptide for rat IgE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAYBOOOD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 RVTHPHLPKDIVRSIAK 18
                                                                                                                                                                                                                                                                                                                                                                                                                     8 rvdhphfpkpivrsitk 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 0.0014
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                                                                                                                                                                                                                                                                                                                                                                                                        Immunogiobulin E: 19E; epsilon heavy chain; antigenic; antigen; lumunogenic; lamunostimulatory; carrier protein; helper T cell epitope; antibody; allergy disease; lumunisation; anti-allergic; anti-allergic; anti-allergic; anti-allergic; anti-anaphylactic; anti-asthmatic; asthma; anaphylaxis; dermatitis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Optimised IgE-CH3 domain antigen peptide for human IgE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-MAY-2000 (first entry)
                                              20-JUN-1998;
                                                                                                          21-JUN-1999;
                                                                                                                                                                             29-DEC-1999
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                                                                                                                                                                                                                                                                                                                        Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 7; 30pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Binding proteins used for treatment or prophylaxis of canine allergy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-040833/04.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Canine; allergy; antibody 15A.2; IgE; B cell; mast cell; anti-allergy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                       98US-0100287
                                                                                                          99WO-US13959
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75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Francoeur G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 65;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0.0027;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21; Length 17;

 Indels

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Promissions Troil splings; meades virus F protein; MF; hepatitis B virus sirios antiquo; MF; himmosphic B coll splings; mediciatum promone rabasing homeos; MBH; compressives anticomercia produce and morth disease virus immosphic him pig; mat-allegid; polaseadum disciprum; circumsporosolies ontimalaria; CETP; oblisatery sets incomport protein; anti-arterioscientch;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (functional in seastically diverse subjects), in addition to a S call target spitope, have increased immospaticity and any include spcilic constraints (disulfide bridge) to stabilise conformational features and maximize cross-resolvity to the natural target. They induce safe (non-enaphylactopeanic) antibodies. AM79994 to AM79994 represent manual despuences used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antiganic peptidas (1). (1) have anti-allergic, anti-anaphylactic and anti-asthantic properties. (1) induces polycional antibodes specific for a target effector site on the opsilon-heavy chain of 1 gs, and so preventing tiggering and activation of mast calls and basophils and downersulation of 1gg synthesis. Conjugates, or fusion applictles, containing (1) are used for active immunisation apaints 1gg Esmoltated containing (1) are used for active immunisation apaints 1gg Esmoltated
wang CY;
                                                                  (UNBI-) UNITED BIOMEDICAL INC
                                                                                                                                     20-JUN-1998;
                                                                                                                                                                                                       21-JUN-1999;
                                                                                                                                                                                                                                                                          29-DEC-1999
                                                                                                                                                                                                                                                                                                                                            W09966957-A2
                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modified human IgE CH3 domain, SEQ ID NO:92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-MAY-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY91212 standard; peptide; 25 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       recombinant production of corresponding peptides or in DNA vaccines.
Conjugates of (I) that include a promiscuous T helper cell epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   allergies, e.g. food allergies, asthma, anaphylaxis, or fice-allergy dermatitis. Nucleic acids that encode these compounds are useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention describes immunoglobulin E (IgE)-CH3 domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 21; 155pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New antigenic peptide from the CH3 domain of immunoglobulin E, fusions for immunization against allergy -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-160578/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang CY, Walfield AM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UNBI-) UNITED BIOMEDICAL INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                iomo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 rvthphlpralmrsttk 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 RVTHPHLPKDIVRSIAK 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                     98US-0100412
                                                                                                                                                                                                       99WO-US13975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64.7%;
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Score 64; DB 21; Length 25; Pred. No. 0.006; Mismatches

Indels 9 Gaps

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completed in City? por lifty epitienes, but note generally estaint cury pathopes, considered in City? and lifty epitienes and be used for prevention and/or trachment of peptide imminosements of considered in the considered in th
                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to movel promiscous: Thelper cell estropes (Th), and immunogenic peridas comparising the Th epitopes of the invention along with a cell epitopes. The Th epitopes and peptide immunogens containing them, are used to induce a Thelper cell response, specifically against plasmodium fatchperum, chokesteryl setor transport
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alvaliae and Anvallae are respectively an immunostimulatory threats in protein epitope from versinia species, and hinge spacer peptide, both of which may optionally be used in the antigenic peptides of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 6; Page 40; 129pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or human immune deficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New artificial T heiper celi epitope and derived immunogens with target antigenic site, for immunization against e.g. malaria, arteriosclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-160564/14
                                                                                                                                                                                                                                                                        Local Similarity
                                             8 rvthphipraimrsttk 24
                                                                                                                                        2 RVTHPHLPKDIVRSIAK 18
                                                                                                                                                                                                                                   11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25 AA
                                                                                                                                                                                                                                                                        47.1%; Score 64; DB 21; Length 25; 64.7%; Pred. No. 0.006;
                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                   ω,
                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                               AAY80077
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ×
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY68602
ID AAY68602 standard; peptide; 25 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The specification describes periods immunogens comprising a synthetic helper 7 cell (file sciloge and a trayer antisen), unterhising synthetic helper 1 cell (file sciloge and a trayer antisen). Extended the second of the second content of the
         15-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunogenis of the invention are used to vaccinate spainst mammalian LHHH for use as (reversible) contraceptive, control of hormone-dependent tumours (cancer of prostate or breast, also endometriosis); to prevent bear taint (and improve ment quality) and for immunocastration. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disciosure; Page 92; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New peptide immunogen containing luteinising hormone-releasing hormone antigen site and helper T cell epitope, for e.g. contraception and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-160562/14.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide sequence of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-MAY-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY68602;
                                                                                                    AAY80077.
                                                                                                                                                                                      AAY80077 standard; Peptide; 25 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     present sequence appears in the specification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           treatment of cancer
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                                                                                                                                                                                                                                                                                                                                                                                                                         8 rvthphlpraimrsttk 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 RYTHPHLPKDIVRSIAK 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 64: DB 21; Length 25;
Pred. No. 0.006;
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RESULT Db ş

12

Optimised IgE-CH3 domain antigen peptide for horse IgE

Indels

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY50897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ±88888888888888888
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                         Synthetic
                                                                                                                                                                    Canine; allergy; antibody 15A.2; IgE; B cell; mast cell; anti-allergy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes immunopiobnine & (ng)-con domain antiquaic peptices (1), (1) have mit-allerigic, anti-analypicitic and darit-allerigic, anti-analypicitic and darit-allerigic properties. (1), (1) have mit-allerigic anti-analypicitic appetion for a second section of the second development of the second section of the section sec
                                                                                                                                                                                                                                                                                     Antibody 15A.2 feline IgE binding epitope 1
                                                                                                                                                                                                                                                                                                                                                                                                                24-PEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY50897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY50897 standard; peptide; 17 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (functional in genetically diverse subjects). In addition to a B cell target epitope have increased associately and may include cyclic constraints (dustifide bridge) to subject of constraints (dustified bridge) to subject of constraints (dustifie
                                                                                                                                     epitope; prophylaxis; treatment; mimotope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           acid sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 146; 155pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for immunization against allergy
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4; Mismatches
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Best Local Similarity
WPI; 1999-579941/49
                                                                                                      Jardieu PM,
                                                                                                                                                                                                             (GETH ) GENERATECH INC
                                                                                                                                                                                                                                                                                                                              07-JAN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-APR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         allergic disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JAN-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      epitopes on free or B-cail bound ignolecules which have an important robs in allergic reaction. The apretin binding proteins are used to produce a pharmaceutical composition preferably with a discussion became used for protein a pharmaceutical composition for the interpretable of the protein and the p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention describes a novel binding protein which specifically binds to native canine free or s-cell bound 1gs, and which doesn't bind to 1gs when the 1gg is bound to nast cells. The petide products of the invention have anti-allergic activity. The antibodies hind to defined
                                                                                                                                                                                                                                                                                                                                                                                 14-AUG-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-OCT-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor-binding; binding determinant sequence; anti-IgE antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunoglobulin E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure: Fig 7: 30pp; English
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                                                                                            Presta LG;
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Pred. No. 0.011;
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ω, Indels 0; Gaps

Immunogiabilin E veriants as peptide antegonists useful for raising and screening anti-immunogiabilin E (1gE) antibodies, in the isolation and purification of Feepsilanki receptor and in the treatment of allergic diseases .

Disclosure; Column 9; 37pp; English.

The invention provides immunoglobulin E (tes) entegorists comprising one or more of the Respections; recognory individual extensions at the of immunoglobulin and the sequence of the Respections and the sequence (both office, Residual distribution and extensions) and the sequence shown in ANY2581: The ORDER (DI top) builting decembers extensions; sequence, are selected from the sequence about in ANY2581-Y1272 and sequence are useful in resisting and seroeming anti-riga antibodies; in the isolation and purification of repairing the respective of the resistant of any prophylatic set attaction of repairing the resistant conditions. diseases.

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Sequence 22 AA;

õ Owery Match 44.1%; Score 60; DB 20; Length 22; Best Local Similarity 69.2%; Proc4 No. 0.021; Natches 9; Conservative 3; Mismatches 1; Indels 1 CRVTHPHLPKDIV 13 |||||||||: :: 10 crvthph1pralm 22 0 Gaps 0

Search completed: July 15, 2002, 12:50:18 Job time: 214 sec

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OM protein - protein search, using sw model
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Maximum Match 100%
Listing first 45 summaries
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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Copyright (c) 1993 - 2000 Comp
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/cgn2_6/ptodata/2/laa/5B_COMB.pep:
/cgn2_6/ptodata/2/laa/6A_COMB.pep:
/cgn2_6/ptodata/2/laa/6B_COMB.pep:
/cgn2_6/ptodata/2/laa/6B_COMB.pep:
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/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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4 US-09-303-323-95
2 US-08-322-53D-19
2 US-08-322-53D-20
2 US-08-322-53D-20
2 US-08-322-53D-20
2 US-09-017-205-52
2 US-08-455-079-18
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US-08-974-549A-327
US-08-854-050-208
US-09-430-323-208
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                                                           US-08-945-168-22
US-08-818-253-15
US-08-818-252-15
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                                                                                                                                                                                                                                                                                         US-07-988-925-12
                                                                                                        PCT-US93-07545-80
US-07-678-974D-17
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US-08-488-379-80
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                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                Sequence 95,
Sequence 95,
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                                                                                                                                                                                                                                                                                                                                                                    Sequence 19
                                                                                                                                                                       Sequence
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                                Sequence
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327, App
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208, App
115, App
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US-08-410-614-22	US-US-433-908B-22	-433-885-2	90	US-08-174-745A-22	US-08-433-854-22	US-08-159-339A-891	PCT-US94-07644A-27	US-08-195-006-27	US-08-592-500-27	US-08-148-209A-9	US-08-455-079-5	PCT-US93-06751-103	US-09-413-492-87	US-08-934-225-87	US-08-933-843-87	US-08-934-224-87	US-09-231-797-87	
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Sequence 95, Application US/09100414B
Patent No. 6025468
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-100-414B-95
US-09-100-414B-95
                                                                     TELEPHONE: 212-754-4800
TELEFAX: 212-751-6849
INFORMATION FOR SEO ID NO: 95:
SEQUENCE CHARACTERISTICS:
LENGTH: 25 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Morgan & Finnegan, L.L.P.
STREET: 345 Park Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Wang, Chang Y1
TITLE OF INVENTION: NOVEL LIRH PEPTIDE
TITLE OF INVENTION: IMMUNOGENS
                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09
FILING DATE: 20-JUNE-1998
                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                          REFERENCE/DOCKET NUMBER: 11
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-758-4800
                                                                                                                                                                                                                                    CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                  MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY:
                                    TOPOLOGY:
                                                      TYPE:
                                                                                                                                                                                                       NAME: Maria H. Lin
REGISTRATION NUMBER: 29,323
                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              New York
                                                                                                                                                                                                                                                                                                                                                                                                                              10154-0054
                                                      amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                   Word 97
                                       linear
                                                                                                                                                                                                                                                                                                                                                     E: Floppy disk
IBM PC compatible
SYSTEM: PC Windows
                                                                                                                                                                                                                                                                                                  US/09/100,414B
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8 RVTHPHLPRALMRSTTK 24 2 RVTHPHLPKDIVRSIAK 18 11;

Matches Query Match

Local Similarity

47.1%; Score 64; DB 3; 64.7%; Pred. No. 0.0012; ative 3; Mismatches

DB 3; Length 25. 3; Indels

0 Gaps

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Conservative

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RESULT 3
US-08-232-539D-19
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US-09-303-323-95
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Patent No. 5965709
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-303-323-95
                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Presta, Leonard G.
APPLICANT: Jardieu, Paula M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 95, Application US/09303323
Patent NO. 6228987
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 Inch, 1.44 Mb floppy disk
COMPUTER( IBM PC COMPARTAL
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 95:
SEQUENCE CHARACTERISTICS:
LENGTH: 25 amino acids
                                                                                                                                                                                       APPLICAME: Jardisu, Paula M.
APPLICAME: Jardisu, Paula M.
TITLE OF INVENTION: IGE Antagonists
GENURNCES: 60
                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 09/10
FILING DATE: 20-JUNE-1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: 09/100,414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION
TELEPHONE: 212-758-4800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Wang, Chang Y1
TITLE OF INVENTION: NOVEL LHRH PEPTIDE
TITLE OF INVENTION: IMMUNOGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                             COUNTRY:
                                                                                                                  STATE:
                                                                                                                                                    STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        y Match 47.1%; Score 64; DB 4; Length 25;
Local Similarity 64.7%; Pred. No. 0.0012;
hes 11; Conservative 3; Mismatches 3; Indels
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                                                                                                                                                                      ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: MATIA H. Lin
REGISTRATION NUMBER: 29,323
REFERENCE/DOCKET NUMBER: 11
                                                                                                                                                                                                                                                                                                                                                                                                                               2 RVTHPHLPKDIVRSIAK 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 212-751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/303, 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: New York
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                                                                               94080
                                                                                                                            F: 1 DNA Way
South San Francisco
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                                                                                                           California
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345 Park Avenue
                                                                                                                                                               Genentech, Inc.
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IBM PC compatible
SYSTEM: PC Windows
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Word 97
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US-08-232-539D-20
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Patent No. 5965709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 19:
SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/1
FILING DATE: 07-JAN-1994
                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compartible
OPERATING SYSTEM: PC-DOS/MS-DOS
                ATTORNEY/AGENT INFORMATION:
NAME: SVODOGA, Craig G.
                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                        SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Prests, Leonard G.
APPLICANT: Jørdieu, Paula M.
TITLE OF INVENTION: IGE Antagonists
NUMBER OF SEQUENCES: 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: ADDRESSEE: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 07/7
FILING DATE: 14-AUG-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/178583
FILING DATE: 07-JAN-1994
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      REGISTRATION NUMBER:
                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                   APPLICATION NUMBER: US/01
FILING DATE: 21-Apr-1994
                                                                                                                                                                                                                                                                                                                                          CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 CRVTHPHLPRALM 22
                                                                                                                                                                                                                                                                                                                            COUNTRY :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Svoboda, Craig G.
REGISTRATION NUMBER: 39,044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 21-Ap:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                               94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Amino Acid
                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Linear
                                                                                                                                                                                                                                                                                                                                                                                        Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-Apr-1994
N: 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44.1%; Score 60; DB 2; Length 22; 69.2%; Pred. No. 0.0045;
                                                                         07/744768
                                                                                                                                                                                       US/08/232,539D
39,044
                                                                                                                        08/178583
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Gaps

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TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-1489

P0718P3

TELEFAX: 650/952-9881 REFERENCE/DOCKET NUMBER:

Page 3

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US-09-017-205-52

Sequence 52, Application US/09017205

Patent No. 5965357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-232-539D-20
                                                                                                                                                                                                                                                                                                        HOLECULE TYPE: peptide from HSV-2 glycoprotein G
FRACHENT TYPE: Internal
US-09-017-205-52
                       US-08-455-079-18

; Sequence 18, Application US/08455079

; patent No. 5994292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 44.1%; Score 60; DB 2; Length 24; Best Local Similarity 69.2%; Pred. No. 0.005;
; GENERAL INFORMATION:
                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                Matches
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                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
INFORMATION FOR SEQ ID NO: 52:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: PEPTIDE STRUCTURES AND THEIR USE IN
TITLE OF INVENTION: DIAGNOSIS OF HERPES SIMPLEX VIRUS TYPE 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Mitchard, Leonard C
REGISTRATION NUMBER: 29,009
REFERENCE/DOCKET NUMBER: 60-
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 18 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12 CRVTHPHLPRALM 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/0
FILING DATE: 02-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Nixon & Vanderhye PC
STREET: 8th Floor, 1100 No. 5985357th Glebe Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CRVTHPHLPKDIV 13
                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                         TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
                                                                                                                                      7 THPHGPAD 14
                                                                                                                                                                         4 THPHLPKD 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22201-4714
                                                                                                                                                                                                                                                                                                                                                                                     amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Marsden,
                                                                                                                                                                                                                                                                                                                                                                                                                18 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Linear
                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HOWARD STRUCTURES AND THEIR USE IN
                                                                                                                                                                                                                                   26.5%; Score 36; DB 2; Length 18; 75.0%; Pred. No. 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              86
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 Mismatches

                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                       2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                           U; Gaps
                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-455-079-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-455-079-14
                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 5994292
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 26.5%; Score 36; DB 2; Length 22; Best Local Similarity 31.2%; Pred. No. 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 18:
                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/O
FILING DATE: 31-MAY-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5-INCH, 1.44 MB STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: TOGATO, GLOVADNA;
APPLICANT: Angiolilo, Anne L.; Sgadari, Cecilia
APPLICANT: ANGIOLILO; INTERFERON: INDUCIBLE
TITLE OF INVENTION: PROTEIN 10 IS A POTENT INHIBITOR OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: ANGIOGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS
LENGTH: 22 AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                               APPLICANT: TOSATO, GIOVANDA:
APPLICANT: ANGIOLILIO ANDE L.; Sgadari, Cecilia
APPLICANT: ANGIOLILIO ANDE L.; Sgadari, Cecilia
TITLE OF INVENTION: INTERPERON-INDUCIBLE
TITLE OF INVENTION: PROFEEI 10 IS A POTENT INHIBITOR OF
                                  SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08
                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5-INCH, 1.44 MB STORAGE
                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: ANGIOGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS
SOFTWARE: WORDPERFECT 5.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 345 PARK AVENUE
CITY: NEW YORK
STATE: NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 KDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: AMINO ACID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7 KNILKAVSKEMSKRSP 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX:
                                                                                        COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                         ZIP
                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                STATE:
                                                                                                                                                                                                                                   CITY: NEW YORK
                                                                                                                                                                                                                                                      STREET:
                   FILING DATE: 31-MAY-1995
                                                                                                                                                                                                                                                                      ADDRESSEE: MORGAN & FINNEGAN, L.L.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KATHRYN M. BROWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               K: (212) 751-6849
421792
                                                                                                                                                                         10154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08455079
                                                                                                                                                                                                                NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22 AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                      345 PARK AVENUE
                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LINEAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MORGAN & FINNEGAN, L.L.P.
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                                          US/08/455, 079
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 Indels

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NAME: KATHRYN M. BROWN

US-07-988-925-12

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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 22 anino acids
STEAMPROFESSION ACCIDENTATION CONTROLLED TO THE CONTROLLED T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-07-988-925-12
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TOPOLOGY: LINEAR
HOLECULE TYPE: PEPTIDE
US-08-455-079-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEX: 421792
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 23 ANTW:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
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TOPOLOGY, linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                        NAME: Mitchard, Leonard C
RECISTRATION NUMBER: 29009
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTEE SEADABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTE: IBM PC Compatible
OPERATING SYSTEM: PC-COMPAS-DOS
SOFTMARE: PREDII Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 21-OCT-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Routledge, Edward G
APPLICANT: Waldmann, Herman
TITLE OF INVENTION: antibody preparation
NUMBER OF SEQUENCES: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 11...
CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Clark, Michael R
APPLICANT: Gorman, Scott D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bolt, Sarah L
                                                                       STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: GB 9206422.9
FILING DATE: 24-MAR-1992
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/07/988,925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 KDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 KNLLKAVSKENSKRSP 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2220
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5585097
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                                                                                                                                                                                                                                                                                                   7038164000
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Nixon and Vanderhye pc
Nixon and Vanderhye pc
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US-08-362-780-12 peptide
                                                                  Matches
                                                                                             Query Match
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                                                                                                                                                                                                                                             TELEFAX: 7038164100
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 12, Application US/08362780
Patent No. 5968509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
                                                                                                                                                                                                                                                                                       NAME: Mitchard, Leonard C
REGISTRATION NUMBER: 29009
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: WO PCT/GB91/01726
FILING DATE: 04-OCT-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: o...
STREET: o...
CITY: Arlington
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                      y Match 26.1%; Score 35.5; D. Local Similarity 35.0%; Pred. No. 31; thes 7; Conservative 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Gorman, Scott D
APPLICANT: Routledge, Edward G
4 LTQPH-----SVSESPGK 16
                           3 VTHPHLPKDIVRSIAKAPGK 22
                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                   TYPE: amino acid
                                                                                                                                                                                                                                                TELEPHONE: 7038164100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
FILING DATE: 23-JUN
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 LTQPH-----SVSESPGK 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 VTHPHLPKDIVRSIAKAPGK 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   local Similarity
les 7; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: Nixon and Vanderhye pc
8th Floor, 1100 No. 5968509th Glebe Road
                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Waldmann, Herman
WENTION: Antibody Preparation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                              7038164000
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                                                                                                                                                                                 Single
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                                                                                    DB 2; Length 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1; Length 22;
                                                      Indels
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                                                   7; Gaps
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US-09-046-985-4 B KESULT 10

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US-09-474-743-4
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                                                                                                                                                                                                                                                                                          Sequence 4, Application US/09474743
Patent No. 6235716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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Patent No. 6121236
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (781) 861-9540
INFORMATION FOR SEQ ID NO:
                      MEDIUM TYPE: Floppy
                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 22,59:
REFERENCE/DOCKET NUMBER: CI
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                            TITLE OF INVENTION: NOVEL MULTIVALENT LIGANDS WHICH MODULATE TITLE OF INVENTION: ANGIOGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 22 amino acids
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                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Brook, David E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: ANGIOGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              y Match 25.7%; Score 35; DB 3; Length 22.
Local Similarity 40.0%; Pred. No. 37;
       COMPUTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: /label- modified aa
OTHER INFORMATION: /note= "N-Acetyl Alanine"
                                                                                 COUNTRY:
                                                                                                    STATE:
                                                                                                                                     STREET:
                                                                                                                                                    ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/046,985
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                   INFORMATION:
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                                                                                                    Massachusetts
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                                                                                                                                     Two Militia Drive
                                                                                                                                                                                                                                                    Ben-Sasson, Shmuel A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Two Militia Drive
                                                                                 USA
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   E: Floppy disk
IBM FC compatible
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 Mismatches

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 208, Application US/08851843A
; Patent No. 6093809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-851-843A-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (781) 861-95
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Andrews, William H.
TITLE OF INVENTION: No. 6093809el Telomerase
NUMBER OF SEQUENCES: 225
                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Gech, Thomas R.
APPLICANT: Lingner, Joachim
APPLICANT: Nakamura, Toru
APPLICANT: Chapman, Karen B
APPLICANT: Morin, Gregg B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: BC-DOS/MS-DOS
SOTTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                     PRIOR APPLICATION DATA:
                                                                                                               CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: peptide
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                                                   CLASSIFICATION:
                                                                          FILING DATE: 06-MA
                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                            ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, 8th Floor
CITY: San Francisco
STATE: California
FILING DATE: 25-APR-1997
                      APPLICATION NUMBER:
                                                                                                                                                                                                                              ZIP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 HRPKDLYSIVRRADG 22
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REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE
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                                                                                                                                                                                                                              9411
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amino acid
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                                                                                                                                                                                                                                                 United States of America
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                                                                          06-MAY-1997
                                                                                                                                                                                         Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25.7%; Score 35; DB 4; Length 22; 40.0%; Pred. No. 37;
                  US 08/846,017
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                                                                                            US/08/851,843A

 Mismatches

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CLASSIFICATION

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US-08-974-549A-327
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TELECOMMUNICATION INFORMATION
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Lingner, Joschim APPLICANT: Naksmura, Toru BAPPLICANT: Chapman, Karen B. APPLICANT: Morin, Gregg B. APPLICANT: Harley, Calvin B. APPLICANT: Harley, Calvin B. APPLICANT: Harley, Calvin B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 23 amino acids
TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/844,419
                                                                                                                                                                                                                                       CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLE
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Andrews, William H.
TITLE OF INVENTION: Human Telomerase Catalytic Subunit
NUMBER OF SEQUENCES: 727
                        PRIOR APPLICATION DATA:
                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                    PRIOR APPLICATION DATA:
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                                         APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
                                                                                                                                                                     APPLICATION NUMBER: US/0
FILING DATE: 19-NOV-1997
CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hes 10; Conserv
APPLICATION NUMBER: US 08/846,017
                                                                                                       APPLICATION NUMBER: US 08/724,643 FILING DATE: 01-OCT-1996
                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Apple, Rando
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US OF FILING DATE: 01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                   ZIP:
                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                            STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 TSPHPRENLPQD-----PGPRCP 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                 San Francisco
                                                                                                                                                                                                                                                                                                                                                                   94111-3834
                                                                                                                                                                                                                                                                                                                                                                                                            California
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                                                                                                                                                                                                                                                                                                     IBM PC compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25.7%; Score 35; DB 3; Length 23; 38.5%; Pred. No. 39;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3; Indels
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US-08-854-050-208
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                 APPLICANT:
              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                        APPLICANT: Cech, Thomas R
APPLICANT: Lingner, Joach
APPLICANT: Nakamura, Toru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (415) 576-0200
TELEPHONE: (415) 576-0300
                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                APPLICANT: Andrews, William H.
TITLE OF INVENTION: No. 5261835el Telomerase
                                                                                                                                                                                                                                                                                                         APPLICANT:
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OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                 APPLICATION NUMBER: WO PCT/US97/17885
FILING DATE: 01-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 25-APR-1997
                                                                                               COUNTRY:
                                                                                                                                                      ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, 8th Floor
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REGISTRATION NUMBER: 36,4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: WO PCT/US97/17618
FILING DATE: 01-OCT-1997
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Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin
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                                                                                           United States of America
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US-09-430-323-208
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Patent No. 6309867
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 38.5
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Apple Brandolph P.

REGISTRATION NUMBER: 4,429
REFERENCE/POCKEY NUMBER: 0,5389-002930US
PELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0300
INFORMATION FOR SEQ. ID NO. 208:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide
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PRIOR APPLICATION NUMBER: US 08/724,643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: US 08/851,843
FILING DATE: 06-MAY-1997
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
CLASSIFICATION: 536
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
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                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 225
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Cech, Thomas R
                                                                                                                                                                                                                                                              Andrews, William H. Andrews, William H. TITLE OF INVENTION: No. 6309867el Telomerase
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                        STREET: Two Embarcadero Center, 8th Floor
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
                                                                  MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                   ADDRESSEE: Townsend and Townsend and Crew LLF
                                                                                                                                COUNTRY
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Nakamura, Toru
Chapman, Karen B.
Morin, Gregg B.
Harley, Calvin
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09-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-APR-1997
                                                                                                                             United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25.7%; Score 35; DE 38.5%; Pred. No. 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4; Length 23;

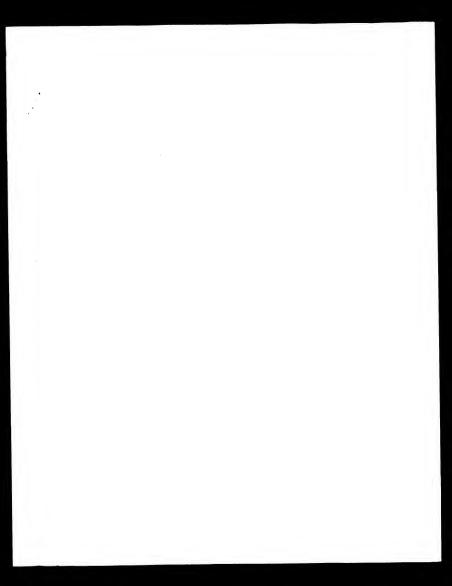
 Indels

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Search completed: July 15, 2002, 12:50:38
Job time: 214 sec
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                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: 208:
                                                                                                   6 TSPHPRENLPQD------PGPRCP 23
                                                                                                                                              4 THPH----LPKDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 208:
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 23 mmino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 015389-002930US
TELECOMMULICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEPHONE: (415) 576-0300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Apple, Randolph T.
REGISTRATION NUMBER: 36,429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-0CT-1996
                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
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FILING DATE: 06-MAY-1997
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FILING DATE: 09-MAY-
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FILING DATE: 29-Oct-1999
                                                                                                                                                                                          Conservative
                                                                                                                                                                                                           25.7%; Score 35; DB 4; Length 23; 38.5%; Pred. No. 39;
                                                                                                                                                                                          1; Mismatches
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-1997
                                                                                                                                                                                     3; Indels
                                                                                                                                                                                     12; Gaps
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Title: Perfect score: Sequence:	Run on:	OM protein - pro	
US-09-938-700-4 136 1 Ckyythphilpkdivrsiakapckrap 25	July 15, 2002, 12:48:59; Search time 14.14 Seconds (without alignments) 169.889 Million cell updates/sec	OM protein - protein search, using sw model	GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

Scoring table: Sequence:

Searched: 283138 segs, 96089334 residues

Gapop 10.0 , Gapext 0.5 BLOSUM62

Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seg length: 0 Maximum DB seg length: 25

PIR_71:* p1r3:* pir4:*

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Query Match Length	B	ID .	Description
_	29	21.3	25	2	S07770	=
N	28	20.6	11	2	S78765	ribosomal protein
3	27	19.9	16	N	PH1351	Ig heavy chain M
۵	27	19.9	20	N	A41439	acid ribonuclease
U	27		25	-	2JBPG4	gene J protein - p
ø,	26.5	19.5	20	N	A36016	granulocyte inhibi
7	26.5	19.5	22	N	PQ0143	polygalacturonase
8	26	19.1	13	N	S32551	glutathione transi
9	26	19.1	15	-	I38336	hypothetical TEL/M
10	26	19.1	20	2	JP0055	ribosomal protein
11	26	19.1	22	2	H30608	
12	26	19.1	22	N	D30609	
13	26	19.1	24	N	B30609	
14	26	19.1	24	N	JP0052	ribosomal protein
15	25	18.4	10	N	H37196	bradykinin-potenti
16	25	18.4	15	N	PA0071	superoxide dismuta
17	25	18.4	15	N	T50503	agrin - electric r
18	25	18.4	17	N	D22595	
19	25	18.4	20	N	PS0028	
20	25	18.4	20	N	H28949	ribosomai procein
21	25	18.4	21	N	B33600	giutamateamnonia
22	25	18.4	22	N	D47256	Kinetopiast DNA-as
23	25	18.4	24	N	G85602	hypothetical prote
24	25	18.4	25	ν.	A50521	Sometorrobru - Acr
25	24	17.6	10	N	B37196	bradykinin-potenti
26	24	17.6	20	N	S23981	outer tayer proces
27	24	17.6	20	ы	546479	retinoid-x-recepto
28	24	17.6	21	N	S51066	ribosomal protein
29	24	17.6	22	N	C42856	hypothetical proce

™ ™ 0 ≥ 13 0	S72535	ы	,	10.2	22	ť
m n 243 0	S7253		,	,	زد	ŝ
	02301	N	23	16.9	23	44
~40		N	23	16.9	23	43
	C48186	N	22	16.9	23	12
	S57568	2	21	16.9	23	î
	A42865	N	20		23	0
5 Carboxylescerase	809025	N	20		23	39
	PA0012	N	19		23	38
III Scotte nz	B27504	٨.	18		23	37
Ig Heavy Char	PH131/	ь:	16		23	36
major at	S65709	N	16		23	35
nypotnectoar	B39109	N	15		23	34
Cy COCILI OME -C	5//990	N	10		. 23	33
WINGS-Terac	A4 1 2 5 3	N	23		23.5	32
	PS02/	N	23		23.5	31
	84256	2	22	17.6	24	30

ALIGNMENTS

histone H2p.1, sperm - sea urchin (Echinus esculentus) (fragment) C.Specius: Echinus esculentus C.Date: - 30-Sep.1991 sequence_revision 30-Sep-1991 #text_change 23-Feb-1997 C.Date: - 30-Sep.1991 C; Accession: S07770

A/Title: Core histone-DNA interactions in sea urchin sperm chromatin. The M-terminal A/Reference number: 90759; MUID:90128812 A/Referencesion: 907759 R:Hill, C.S.; Thomas, J.O. Bur. J. Biochem. 187, 145-153, 1990

A; Molecule type: protein A; Residues: 1-25 <HTL> C; Superfamily: histone H2B C; Keywords: chromosomal protein; DNA binding; nucleosome core; nucleus

ouery Match 21.3%; Score 29; DB 2; Length 28; Best Lord Similarity 62.5%; Pred. No. 1.3e+03; Matches 5; Conservative 2; Mismatches 1; Indels 18 KAPGKRAP 25 U; Gaps

2

Db

4 KSPTKRSP 11

ribosami protein MBP-524, micohondrial - bovine (fragment) Cispocies: Bos prinsipanius taurus (cattle) Cipote: 20-5ep-1999 isaquence_revision 20-5ep-1999 ttaxt_change 20-5ep-1999 CiAccession: 579785

A; Reference number: S78760 A; Accession: S78765 R;Graack, H.R. submitted to the Protein Sequence Database, July 1999

Nikhijenih "typs" protein Albesidues: 1-11 KOMA C.Keywords: mitochondion C.Keywords: mitochondion F;1-11/Product: Tibosomal protein MBF-524 (fragment) #status experimental 4MAT>

Matches Query Match Local Similarity 5 HPHLPKDIVR 14 Conservative 20.6%; Score 28; DB 2; Length 11; 40.0%; Pred. No. 7.7e+02; 40.0%; Atlantiches 3; Indels 0;

RESULT B

2 HVDVPKDLTK 11

8 LPKDIVRSIAKAPGKR 23

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A:Cross-references: GB:J02454; GB:H0724; GB:H1404; GB:H0657; HD:91581; PTDR:CAX200
C:Comment: Gene J Protein is one of the structural components of the bacteriophage coat.
C:Supperfaully: phage phi:X174 gene J protein
                                                                                                                                                                                                                                                                                                                                                                                               A: Molecule type: DNA
A: Residues: 1-25 <GOD>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Accession: A04259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R:Ocdson, G.N.; Barrell, B.G.; Staden, R.; Fiddes, J.C.
Nature 276, 236-247, 1978
A.71118: Nucleotide sequence of bacteriophage G4 DNA.
A:Reference number: A93200; MVID:79053264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene J protein - plage 64
CSPeciae; plage 75
Cjbne: 30-Nov:1379 #sequence_revision 30-Nov-1979 #text_change 28-Jul-2000
Cjbne: 30-Nov:1379 #sequence_revision 30-Nov-1979 #text_change 28-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A: Molecule type: protein
A: Residues: 1-20 <OHG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A:Title: Purification of acid ribonucleases from bovine spleen A:Reference number: A41439; MUID:88227899 A;Accession: A41439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C:Species: Bos primigenius taurus (catta)
C:Date: 21-Apr-1992 Mequence_revision 21-Apr-1992 Mtoxt_change 21-Mar-1996
C:Accession: A4449
G:Accession: A4449
M:Gloji.K.: Sanda, A.: Takizawa, Y.; Irie, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C: Keywords: hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acid ribonuclease (EC 3.1 - - ) - bovine (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db
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A:Reference number: PH1302; MUID:93094761
A:Accession: PH1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Keywords: heterotetramer; immunogiobulin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Wasserman, R.; Gelili, N.; Ito, Y.; Reichard, B.A.; Shane, S.; Rovera, G. J. Exp. Med. 176, 1577-1581, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C:Species: Homo sapiens (man)
C:Date: 30-Sep:1993 #sequence_revision 30-Sep-1993 #text_change 07-way-1999
                                                                 Matches.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ig heavy chain DJ region (cione C100-109B) - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hg1, K.; Sanda, A.; Takizawa, Y.; Irie, M.
Biochem. 103, 267-273, 1988
                                    Local Similarity 43.8%;
hes. 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16 TAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 HLYFPKDL 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 HPHLPKDI 12
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                            Score 27; DB 1; Lenyum --.
Pred. No. 2.5e+03;
""amatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 27; DB 2;
Pred. No. 1.6e+03
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                                           Gaps
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                                                  c
                                                                                                                          R.Singhal, S.S.; Saxona, M.; Almad, H.; Avasthi, Y.C.
Blochina, Blophys, Acta 1115, 117-146, 1929
A:Title: Glutathione S-transferases of mouse liver: sex-related differences in the ex
                                                                                                                                                                                                                                       glitathione transferase (82 2.5.1.18) mm (1soform pl 6.4) - mouse (fragment) cSpecitas: Mus executius (house mouse) copiate: 02-bbc:1991 resquence_revision pl.bbc:1993 rext_change 05-7an-1996 copiate: 02-bbc:1993 resquence_revision pl.bbc:1993 rext_change 05-7an-1996 copiates 05-7a
A; Molecule type: protein
A; Residues: 1-13 <SIN1>
                                                                               A; Accession: S32551
                                                                                                            A; Reference number: $32548; MUID:92256466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C: Keywords: gl:
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C:Comment: This protein is spi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-22 <BRO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Accession: PQ0143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Characterization of a gene family abundantly expressed in Genothera organens A;Reference number; JQ0992; MJID:93005658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plant Cell 2, 263-274, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession: PQ0143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polygalacturonase (EC 3.2.1.15) P26 - evaning primose (fragment)
C:Species: Genothera organeasis (evening primose)
C:Date: 31.Mar:1992 #sequence_revision 31-Mar-1992 #text_change 06-Dec-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
7; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A:Residues: 1-20 <HOE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A-Title: Physicochemical chiracterization of a Polypeptide present in uremic serum th ArRierence number: A5605 MUID:90349614
Arriccession: A5605
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Proc. Natl. Acad. Sci. U.S.A. 87, 6533-6357, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C:Date: 11-Jan-1991 #sequence_revision 11-Jan-1991 #text_change 30-May-1997
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C/Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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hes 8; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This protein is specifically translated in the pollens This protein functions by depolymerizing pectin in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              glycosidase; hydrolase; polysaccharide degradation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19.5%; Score 26.5; DB 2;
38.1%; Pred. No. 2.6e+03;
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Length 22; Indels

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A:Kolecule type: protein
A:Residues: 1-20 <CCH:
C:Superfamily: Becherichia coli ribosomal protein L30
C:Keywords: protein biosynthesis: ribosome
                                                                                                                                                                                                                                                                                                                                           A:DeScription: Phytogenetic diversity in the genus Bacillus and comparative ribosomal pr
A:Reference number: JP0042
A:Accession: JP0055
                                                                                                                                                                                                                                                                                                                                                                                                                submitted to JIPID, February 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C:Species: Bacillus polymyxa
C:Date: 10-Mar-1994 #sequence_revision 28-Oct-1994 #text_change 02-Sep-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Accession: JP0055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ribosomal protein L30 - Bacillus polymyxa (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A:Map position: 22q11/12p13
C:Keywords: fusion protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A:Cross:references: EMBL:x85026; NID:9971473; PIDN:CAN59399.1; PID:9971474
C:Comment: This sequence is the chimeric product of a translocation mutation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Residues: 1-15 < BUI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.Bulja. A.; Sherr, S.; van Baai, S.; van Bezouw, S.; van der Plas, D.; Van Kessel, A.G. Oncogene 10, [51] 1319, [99]
Oncogene 10, [51] 1319, [99]
A.Title: Translocation (12) (22) ([91] ([1]) in myeloproliferative disorders results in fust
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A:Reference number: I38031; MUID:95249265
A:Accession: I38336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C:Species: Homo sapiens (man)
C:Date: 21-Peb-1997 #sequence_revision 21-Feb-1997 #text_change 20-Apr-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C: Keywords: transferase
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A; Residues: 1-13 <SIN2>
                                                                                                                 Matches 5; Conserv
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                                                                12 IVRSIAKAPG 21
         7 LVRSLIGRPG 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 HLPKDI 12
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                                                                                                                           19.1%; Score 26; DB 2; Length 20; 50.0%; Pred. No. 2.7e+03;
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Pred. No. 2.1e+03;
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                                                                                                            Mismatches
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                                                                                                            3; Indels
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A:Status: Pedininary
A:Molecule Yeps protein
A:Mostolus: 1-24 <000b
C:Superfamily: immunoglobulin V region; immunoglobulin homology
C:Keywords: heterotetramer; immunoglobulin
                                                                                                                                                         A;Title: Structural and idiotypic characterization of the L chains of human IgM autoa
A;Reference number: A30601; MUID:89215279
                                                                                                                                                                                                                                                                      CiSpecies: Homo sapiens (man)
CiDate: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 30-May-1997
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C:Date: 29-Jun-1989 #sequence_revision 29-Jun-1989 #text_change 30-May-1997
C:Accession: D3669
                                                                                                                                               A:Accession: B30609
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A:Residues: 1-22 <GON>
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A;Reference number: A30601; MUID:89215279
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A.Reference number: A30601; MJID:89215279
A:Accession: H30608
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A; Residues: 1-22 <GON>
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C;Date: 29-Jun:1989 #sequence_revision 29-Jun-1989 #text_change 30-May-1997
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C:Species: Homo sapiens (man)
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                                                                                                                                                                                                               Joni, F.R.; Chen, P.P.; McGinnis, D.; Arjonilla, M.L.; Fernandez, J.; Carson, D.; S. Immunol. 142, 3158-3163, 1989
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Pred. No. 3e+03;
5; Mismatches
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Pred. No. 3e+03;
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1; Indels Length 22

0

Gaps

DB 2; Length 22; 1; Indels

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Gaps

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submitted to JIPD. February 1994
Albastription: Phylogenetic diversity in the genus Becillus and comparative ribosomal pr
Albastription: Phylogenetic diversity in the genus Becillus and comparative ribosomal pr
Albastription: Phylogenetic 
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C.Specius: Bucillus macquartensis
C.Specius: 10-ac-1394 sequence.revision 28-oct-1994 staxt_change 02-Sep-2000
C.Dates: 10-ac-1399 sequence.revision 28-oct-1994 staxt_change 02-Sep-2000
C.Specias.com
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H37196
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Search completed: July 15, 2002, 12:50:59 Job time: 120 sec
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Best Local Similarity
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Listing first 45 summaries
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Maximum DB seg length: 25
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score greater than or equal to the score of the result being printed.
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AU33_LITRA
                                                                 H5_COTJA
AU31_LITRA
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BPP8_BOTIN
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UC06_MAIZE
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Best Local
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Wallace J.C., Tyler K.J.;
Whost defence peptides from the skin giands of the Australian blue mountains tree from Q. Horia citropa, Solution structure of the antibacterial peptide citropin 11.1.*
But. J. Biochem, 268:275-29(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    citropin 1.2.4.
Litoria citropa (Australian blue mountains tree frog).
Litoria citropa (Australian blue mountains tree frog).
Eukaryota; Metazoa; Choridata; Cranlata; vertebrata; Euteleostomi;
Amphibla; Batrachia; Anura; Neobatrachia; Bufonoidea; Bylidae;
Amphibla; Batrachia; Anura; Neobatrachia; Bufonoidea; Bylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P81844;
30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
                                                                                                                                                                  30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Citropin 1.1.3
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P81838;
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=94770;
Regener K.L., Wabnizz P.A., Carver J.A., Bowie J.H., Chia B.C.S., Wallace J.C., Tyler M.J.;
Wallace J.C., Tyler M.J.;
"Host defence peptides from the skin glands of the Australian blue
                                                                                                                       Litoria citropa (Australian blue mountains tree frog).
Bukaryota; Metazoa; Chordata; Chaniata; Verebrata; Buteleostomi;
Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                 -1- TISSUE SPECIFICITY: DORSAL AND SUBMENTAL SKIN GLANDS SEQUENCE 18 AA; 1814 MW; 500BF778D515ABD7 CRC64;
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                                                        TISSUE=Skin.
                                        MEDLINE-99435977; PubMed-10504394;
                                                                                              NCBI_TaxID-94770
                                                                                                                                                                                                                                                                                                                                  11 DIVRSIAKAPGKRAP 25
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hes 5; Conserv
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pred. No. 1.7e+02;
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MEDLINE-99212469; PubMed-10196736;

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                                                                                                                                                           Pyrokinin-4 (Pea-PK-4) (YXPRL-amide).
Periplaneta americana (American cockroach).
                                                                                                                                                                                                                                                                                                                                PERAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
    TISSUE-Retrocerebral complex
                          SECUENCE, FUNCTION, AND MASS SPECTROMETRY
                                                                       NCBI_TaxID-6978;
                                                                                        Pterygota: Neoptera: Orthopteroidea: Dictyoptera: Blattaria: Blattoidea: Blattidae: Periplaneta.
                                                                                                                                     Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta
                                                                                                                                                                                                   16-0CT-2001 (Rel. 40, Created)
16-0CT-2001 (Rel. 40, Last sequence update)
16-0CT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                   PPK4_PERAM
P82619;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE: P800357, HISTONE_HZB: PARTIAL.
Nuclear protein: Chromosomal protein; Nucleosome core; DNA-binding;
Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Histone HZB.1, sperm (Fragment).
Echinus esculentus (Sea urchin).
Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Core histone-DNA interactions in sea urchin sperm chromatin. The N-terminal tabli of HZB interacts with linker DNA.";
EUR: J. Blochem. 187:145-151(1990).
--- SIBUNIT: THE NUCLESSOME IS AN OCTAMBE CONTAINING TWO MOLECULES O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-90126812; PubMed-2298202;
Hill C.S., Thomas J.O.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=7648;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCAL Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                    4 KSPTKRSP 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H2A, H2B, H3, AND H4: WHICH WRAP APPROXIMATELY 146 BP OF DNA SUBCELLULAR LOCATION: Nuclear.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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Pred. No. 4.6e+02
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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RESULT
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                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                         DISTURBING MEMBANE FUNCTIONS WITH ITS AMPHIPATHIC STRUCTURE
1- SUBCELULAR LOCATION: Secreted.
-- SIMILARITY: BELONGS TO THE DEBMASEPTIN FAMILY
AND LOCATION: AMPHIBLE AMPHIBLE
                                                                                                                                                                                                                                                                                                                                                                                                  NICOLAS P., Dalfour A.,
"Structure, synthesis, and molecular cloning of dermaneptins B. a
family of skin peptide antibiotics."
J. Biol. Chem. 273:4690-14697(1999).
- DINCTION: POSSESSES A POTENT ANTIPE MOTERIA. PRODMALY ACTS BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dermaseptin BVI (Dermaseptin B6).

Phyllomedusa bicolor (Two-colored leaf frog).

Bukaryota, Metacoa; Chordeta; Canidta, Vertebrata; Euteleostomi;

Bukaryota, Metacoa; Chordeta; Canidta, Vertebrata; Euteleostomi;

Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-DEC-1998
15-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Charpentier S., Amiche M., Nester J., Vouille V., Le Ceer J.-P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-98278974; PubMed-9614066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID-8393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-OCT-2001 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DMS6_PHYBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE 12 AA; 1449 MW; FA7A3049FF42CAA1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Neuropeptide; Amidation; Pyrokinin
MOD_RES 12 12 AMIDA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the American cockroach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     *Tagma-specific distribution of FXPRLamides in the nervous system of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Predel R., Eckert M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-20189894; PubMed-10723010;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE SPECIFICITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Prodel R., Kellner R., Nachman R.J., Holman G.M., Rapus J., Gande G.; 
"Differential distribution of pyrokinin-isoforms in cerebral and 
abdominal neurohemal organs of the American cockroach."; 
Juneart Blochem. Not. Biol. 28:139-14(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -1- SIMILARITY: BELONGS TO THE PYROKININ FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - I - FUNCTION: MEDIATES VISCERAL MUSCLE CONTRACTILE ACTIVITY
                                                                                                               10 KDIVRSIAKA 19
                                                                  4 KDILKNAGKA 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 HLPHDV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 HLPKDI 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MASS SPECTROMETRY: MW-1147.9; METHOD-MALDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE SPECIFICITY: CORPORA CARDIACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MYOTROPIC ACTIVITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neurol. 419:352-363(2000)
                                                                                                                                                                                                                                                                      24 AA;
                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Rel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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    Last sequence update)
    Last annotation update)

                                                                                                                                                                                                                                                                      2665 MW;
                                                                                                                                                                             19.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)

 Mismatches

                                                                                                                                                                             Score 27; DB 1;
Pred. No. 8.5e+02;
                                                                                                                                                                                                                                                                 E5987D7F50E08F4F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 4.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 27;
                                                                                                                                                                                                                                                                                            AMIDATION (POTENTIAL)
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                                                                                                                                                                                               DB 1; Length 24;
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J. Mol. Biol. 256:736-750(1996)
-i- PUNCTION: THE J PROTEIN IS ASSOCIATED WITH THE DNA AND IS SITUATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McKenna R., Boyman B.R., Liag L.L., Rossmann N.G., Pane B.A.)
"Atomic Structure of the degraded procepts(d particle of the
bacteriophage G4; induced Structural changes In the presence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last seq
01-OCT-1996 (Rel. 34, Last ann
                                                                                                                                                                                                                Tachykinin-related peptide 3 (LemTRP 3).
Leucophaea maderae (Madeira cockroach).
Eukaryota: Netazoa: Arthropoda; Tracheata; Hexapoda; Insecta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; J02454; AAA32322.1; -. EMBL; V00657; CAA24018.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -1- SUBUNIT: THE VIRION IS COMPOSED OF 60 COPIES EACH OF THE F, G, AND J PROTEINS, AND 12 COPIES OF THE H PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-96217890; PubMed-8642594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NEDLINE-79053264; PubMed-714153;
Godson G.N., Barrell B.G., Staden R., Fiddes J.C.;
*Nucleotide sequence of bacteriophage G4 DNR.*;
Nature 276:236-247(1978).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Viruses; ssDNA viruses; Microviridae; Microvirus
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                                                                                                                                                                                                                                                                                                        30-MAY-2000 (Rel.
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30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                 TRP3_LEUMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Coat protein; DNA-binding; 3D-structure
SEQUENCE . 25 AA; 2815 MW; 87B7A8DFFF
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                     MEDLINE-97053012; PubMed-8897641.
                                                                                                                                                                                          Pterygota; Neoptera; Orthopteroidea; Dictyoptera; Blattaria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      K-RAY CRYSTALLOGRAPHY (3.0 ANGSTROMS).
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                                                      rissuE=Midgut;
                                                                                                                              NCBI_TaxID-6988
                                                                                                                                                               Blaberoidea; Blaberidae; Leucophaea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
hes 7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 LPKDIVRSIAKAPGKR 23
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                                                                                                                                                                                                                                                                                                                              (Rel.
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                                                                                                                                                                                                                                                                                                   39, Last annotation
                                                                                                                                                                                                                                                                                                                              Last sequence update;
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Pred. No. 8.9e+02;
Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Unknown protein from 2D-page of etiolated coleoptile (Spot 1131)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                    UC06_MAIZE
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                                                        4 DVVKHIASA 12
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J.E., Naessel D.R.

(Fragment

STANDARD;

PRT; 15 AA 13 AA;

1429 NW; 19.1%;

AMIDATION. DE17C7204CCAE322 CRC64 Score 26; DB 1; Length 13; Pred. No. 6.4e+02;

Mismatches

2; Indels

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Dest Local Similarity
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30-MNY-2000 (Red. 19, Last sequence update)
30-MNY-2000 (Red. 19, Last semendention qudate)
45-CGT-2001 (Red. 40, Last bemodention qudate)
45-CGT-2001 (Red. 40, Last bemodention qudate)
45-CGT-2001 (Red. 40, Last bemodention qudate)
45-CGT-2001 (Red. 40, Last bemodentia)
45-CGT-2001 (Red. 40, Last b
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P82050,
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-i- SIMILARITY: SOME SIMILARITY TO TACHYKININS
Tachykinin; Neuropeptide; Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE

    -1- FUNCTION: MYOACTIVE PEPTIDE. INCREASES THE AMPLITUDE AND FREQUENCY
OF SPONTANEOUS CONTRACTIONS AND TONUS OF HINDGUT MUSCLE.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the cockroach Leucophaea madera: existence of N-terminally extended
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Isolation of five tachykinin-related peptides from the midgut of
Amphibian skin; Antibiotic; Amidation.
PEPTIDE 1 13 UPERIN 7.1.
PEPTIDE 3 13 UPERIN 7.1.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tree frog, Litoria ewingi. Sequence determination and antimicrobial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Steinborner S.T., Bowie J.H., Tyler M.J., Wallace J.C.; *An unusual combinaton of peptides from the skin glands of Ewing's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Skin secretion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     isoforms."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aust.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE, AND MASS SPECTROMETRY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=104896;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18 KAPG-KRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 RAPGSKKAP 12
                                                                                                                                                                                             MASS SPECTROMETRY: MW-1427; METHOD-FAB; RANGE-1-13.
MASS SPECTROMETRY: MW-1184; METHOD-FAB; RANGE-3-13.
                                                                                                                                                                                                                                                                                                                                         TISSUE SPECIFICITY:
                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: UPERIN 7.1 SHOWS ANTIBACTERIAL ACTIVITY AGAINST L.LACTIS AND S.UBERIS. UPERIN 7.1.1 IS INACTIVE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LITEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19 AA; 1930 MW; 99B5471A011625E5 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50:889-894(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             66.7%;
                                                                                                                                                                                                                                                                                                                            SECRETED BY THE SKIN DORSAL GLANDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 8e+02; Length 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13 AA
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                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                           Megemen K.L. Wabnitz P.A. Cerver J.A. Boots J.H. Chia B.C.S. Wallace J.C. Tyler M.J. Wallace J.C. Wallace J. Wallace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
Citropin 1.2 (Contains: Citropin 1.2.1; Citropin 1.2.2; Citropin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P81840; P81841; P81842; P81843;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1- MISCELLANBOUS; ON THE 2D-CEL THE DETERMINED PI OF THIS UNKNOWN
PROTEIN IS: 6.6. ITS MM IS: 71.0 kDa.
Maize-2DPAGE; P80612; COLBOPTILE.
                                                                                                                                                                                                                                                             PEPTIDE
                                                                                                                                                                                                                                                                                                                                                 Antibiotic; Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-99435977; PubMed-10504394;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID-94770;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Litoria citropa (Australian blue mountains tree frog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MaizeDB; 123930;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              genome analysis program.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pernollet J.-C., zivy M., de Vienne D.; "The malze two dimensional gel protein database: towards an integrated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Spermatophyta; Magnoliophyta;
Panicoideae; Andropogoneae; Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC clade;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-Coleoptile
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID-4577;
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                                                11 DIVRSIAKAPG 21
                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17 AKAPGKRAP 25
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    4 DIIKKVASVVG 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 AAAPPRRGP 10
                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: BACTERIOSTATIC ACTION FOR GRAM-POSITIVE BACTERIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5; Conserv
                                                                                                                                                                                                                                                                                                                                                                   SPECIFICITY: DORSAL AND SUBMENTAL SKIN GLANDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Riccardi F., Morin C., Damerval C., Huet J.-C., J.-C., Zivy M., de Vienne D.;
                                                                                             Conservative
                                                                                                                                                                                                            16 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genet.
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                                                                                                                                                                                                            1616 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1390 MW; 7005E22830F23D61 CRC64;
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                                                                                                                   36.48;
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                                                                                        Score 26; DB 1;
Pred. No. 7.9e+02;
3; Mismatches 4
                                                                                                                                                                                                                                                CITROPIN 1.2.1.
CITROPIN 1.2.1.
CITROPIN 1.2.2.
CITROPIN 1.2.3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 26; DB 1;
Pred. No. 7.4e+02;
                                                                                                                                                                                                            1D878515ABD73DE9 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                         Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                             Indels
                                                                                        0,
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                                                                                        Gaps
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CTID_LITCI
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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P30426;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=8723;
                                                                                                                                                                                                                                                                                            Protein Chem. 9:221-227(1990)
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Wegemen K.L. Mahoutap A., Carver J.A., Bowle J.H., Chia B.C.S., Mallows J.C., Tyler M.J.,
"Nost defence peptides from the skin glands of the Amarcalian blue mountains tree frog litoria citrops. Solution structure of the antibacterial peptide citropsin J.L.",
Eur. J. Biochem. 258:578-573(198).
SOURCE 18 A., 1815-88. 5181-879705(1580) Cmc64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-MAY-2000 (Rel. 39, Last sequence update) 30-MAY-2000 (Rel. 39, Last annotation update) Citropin 1.2.5
                                                                                                                                                                                                                                                                                                                                                          MEDLINE=99435977; PubMed=10504394;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Litoria citropa (Australian blue mountains tree frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=94770;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-MAY-2000 (Rel. 39, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18 AA
DB 1;
Length 18
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Best Local Similarity 11 DIVRSIAKAPG 23 Conservative 36.4%; Score 26; Pred. No. Mismatches Indels 0, Gaps

0

BOTIN

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea; Viperidae; Crotalinae; Bothrops. Bradykinin-potentiating peptide S5.1 (Angiotensin-converting enzyme inhibitor). 01-APR-1993 (Rel. 25, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
01-FEB-1994 (Rel. 28, Last annotation update) Bothrops insularis (Island jararaca) (Queimada jararaca) STANDARD; TAT 10 AA

MEDLINE=90351557; PubMed=2386615

Cintre A.C.O., Visite C.A., Giglio J.R.; "Primary structure and biological activity of bradykinin potentiating peptides from Bobhrops insularis snake venom.";

PIR; H37196; H37196. BRADYKININ BY INHIBITING THE KINASES THAT INACTIVATE IT. ACTS AS AN INDIRECT HYPOTENSIVE AGENT. FUNCTION: THIS PEPTIDE BOTH INHIBITS THE ACTIVITY OF THE ANGIOTENSIN-CONVERTING ENZYME AND ENHANCES THE ACTION

SEQUENCE Hypotensive agent; Venom MOD_RES 1 1 10 AA; 1173 MW; 2FF835545761F6D8 CRC64 PYRROLIDONE CARBOXYLIC ACID

Length 10

18.4%; Score 25; DB 1; La Pred. No. 6.9e+02; 2; Mismatches 0;

Indels ¢; Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
TISSUES-CHARMAL OSTERNIA JOING.

MEDIAND-2000845, PROMOND-201510.

MEDIAND-2000845, PROMOND-201510.

MEDIAND-2000845, PROMOND-201510.

MEDIAND-201510.

MEDIAND
                                                                                                                                                                                                                                                                                                                                                                                                                          Litoria raniformis (Southern bell frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aurein 1.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last seguence update)
01-MAR-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P82387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -1- FUNCTION: ANTINICROBIAL ACTIVITY RAGINST B CEREUS, L.LACTIS, L.LINCCUA AND S.UBERIS, PROBABLY ACTS BY DISTURBING MEMBRANE FUNCTIONS WITH ITS AMPHEMATED, STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "The antibiotic and anticancer active aurein peptides from the australian bell frogs Litoria aurea and Litoria raniformis the solution structure of aurein 1.2.";
Bur. J. Biochem. 267:5330-5341(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-20408845; PubMed-10951191;
Rozek T., Wegener K.L., Bowie J.H., Olver I.N., Carver J.A.
Wallace J.C., Tyler M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Litoria raniformis (Southern bell frog).
Bukaryota; Metazoo; Chordata; Craniata; Vertebrata; Buteleostomi,
Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P82386;
                                                                                                                                                                                                                                                                                             SEQUENCE, FUNCTION, AND STRUCTURE BY NMR
                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=116057
                                                                                                                                                                                                                                                                                                                                                                                                 Amphibia; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AU12_LITEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antibiotic; Amidation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Granular dorsal gland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE, AND FUNCTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=116057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11 DIVRSIAKA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 DIIKKIAES 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 HPNIP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5 HPHLP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13 AA; 1447 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       173CB99DFBC83330 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AMIDATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1; Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
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                                                                                                                                                                                                                                           Job time: 195 sec
                                                                                                                                                                                                                                                               Search completed: July 15, 2002, 12:53:59
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Matches

5; Conservative

Mismatches

4; Indels

9

Gaps

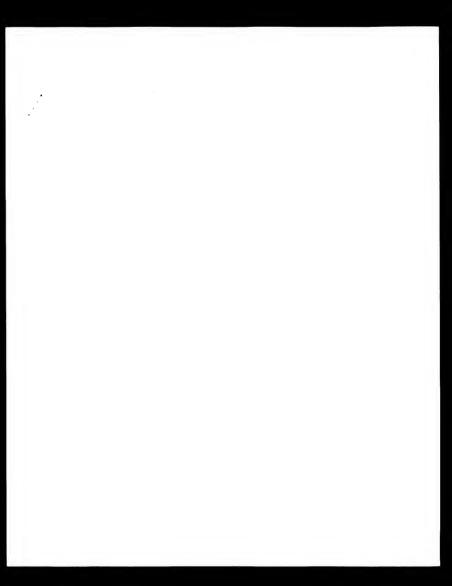
2 RVTHPHLPKDI 12

2 REEHENLPORI 12

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MCA2_RHOOP
                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                          PROSITE: PS00913; ADH_IRON_1: PARTIAL PROSITE: PS00060; ADH_IRON_2: PARTIAL

    PATHMAY: 3-CHLOROCATECIGL DEGRADATION (BETA-KETGALIFATE PATHMAY).
    THIS PATHMAY SERVES A VITAL ROLE IN THE SIGNEGRADATION OF TOXIC ARGMATIC COMPOUNDS INTRODUCED IN THE ENVIRONMENT BOTH AS MATURAL PRODUCTS.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J. Bacteriol. 180:3503-3508(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0-MAY-2000 (Red. 39, Created)
10-MAY-2000 (Red. 39, Last sequence update)
16-CT-2001 (Red. 40, Last annotation update)
16-CT-2001 (Red. 40, Last annotation update)
17-CT-2001 (Red. 40, Last annotation update)
18-CT-2001 (Red. 40, Last annotation 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P56870;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Amidation; Antibiotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -1- SUBCELLULAR LOCATION: SECRETED
                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                              NON_TER
                                                                                                                                                                                                                                                                                                                 Aromatic hydrocarbons catabolism; Oxidoreductase; NAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seibert V., Kourbatova E.M., Golovleva L.A., Schloemann M.; 
"Characterization of a maleylacetate reductase encoding region from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-98324954; PubMed-9657989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID-37919;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Actinomycetales; Corynebacterineae; Nocardiaceae; Rhodococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MCA2_RHOOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11 DIVRSIAKA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 DIIKKIAES 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOCAT.
          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS TO THE IRON-CONTAINING ALCOHOL DEHYDROGENASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               H(d)CWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATALYTIC ACTIVITY: 3-oxoadipate + NAD(P)(+) = 2-maleylacetate +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                           15 AA; 1884 MW; 58DA90DD038F025E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IPR001670; Fe-ADH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13 AA; 1481 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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18.49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            44.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SHOWS ANTICANCER ACTIVITY.
Score 25; DB 1;
Pred. No. 1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 25; DB 1;
Pred. No. 9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1EACB99DFBC83330 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AMIDATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15 AA
                                                  DB 1; Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1; Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
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225

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Post-processing: Minimum Natch 0%
Maximum Natch 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                            Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                            80
Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                         Score Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   July 15, 2002, 12:50:24; Search time 23.8 seconds (without alignments)
181.717 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   562222 seqs, 172994929 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPTREMBL_19:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sp_mhc:*
sp_organelle:*
sp_phage:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sp_archea:*
sp_bacteria:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sp_invertebrate:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sp_human:*
                                                                                                                                                                                                                                                                                                                                                                                                                                      sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sp_virus:*
sp_vertebrate:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sp_rodent:*
2 09L7N8
4 09UEM3
4 09UM3
6 09NOJ5
5 09TWR3
10 09S9B8
4 09UCJ8
8 09TZV8
6 09SJA2
12 085667
                                                                                                                                                                                                                            4 Q9BQT0
15 Q90RH8
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                                                                                                                                                                Q9MX47
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                                                                                                                                                                                                                                                                                                                            SUMMARIES
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                                            099/y2 mus musculu
092/0 solamm tub
016271 homo sepien
016271 homo sepien
09847 orytiss lat
091/16 borrella el
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091/16 bomo sepien
091/18 bomo sepien
091/18 bomo sepien
091/18 bomo sepien
Q9t2v8 homo sapien
Q95ja2 sus scrofa
Q85667 reovirus (
                                                                                                                                                                                                                            Q9bqt0 homo sapien
Q90rh8 human immun
                                                                                                                                                                                                                                                                            Description
   reovirus (t
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24 2 0 054259			2
004105 0 004105 0 004111 0 004111 0 004111 0 004111 0 00411 0 00411 0 00411 0 00411 0 00411 0 0041 0			2
00415 4 2 006X115 006X115 01009X115 0100		4	2
09415 09415 09415 09415 09415 09415 09415 09415 09415 09417		7	2
3 10 094139 094116 4 2 094116 094116 5 10 094129 094116 5 10 094129 094130 6 13 095935 094130 6 13 095935 094130 6 13 095935 094130 6 11 095901 09410 6 5 5 882706 982700		.~	24
3 10 094139 094141 4 2 094116 094136 5 10 094122 094136 5 10 094122 094136 0 13 098915 09416 0 13 098915 09417 5 11 090V01 09991		.~	24
3 10 Q94159 Q94154 4 2 Q9K1L6 Q94152 Q9K1L6 5 10 Q94152 Q94150 Q94150 11 Q995H5 Q94151 Q95H		17.6	24
3 10 094159 Q9415 3 10 094159 Q94116 4 2 094116 Q94115 5 10 094152 Q9416 0 13 Q94815 Q94816		7	24
10 094IS9 Q94IS 4 2 Q9KIL6 Q9KIL6 5 10 Q94IS2 Q94IS	0		.5
3 10 Q94IS9 Q941s 4 2 Q9KIL6 Q9k116	5	18.4	25
3 10 Q94IS9 Q94Is	^		25
o u good undergrand	ω	18.4	25
3 5 005005	ω	18.4	25
3 2 Q43887 Q43887 a	ω		25
2 13 Q9PS65 Q9ps65	N	18.4	25
2 5 Q9TWU8 Q9twu8 c	2	18.4	25
1 4 Q9H4Z8	-	18.4	25
9 15 Q90RH4 Q90rh4	9	18.4	25
9 13 042416	9	18.4	25
8 2 Q9R4E0 Q9r4e0 F	æ	18.4	25
7 6 Q9xSG1 Q9xSg1 E	7	18.4	25
5 13 Q90403 Q90403	S	18.4	25
4 3 P90342 P90342 s	٩	18.4	25
3 13 P82387 P82387	ω		25
3 13 P82386 P82386 litor	ω		25
4 5 Q9U542 Q9u542 a	^		5.5
6 6 Q9TRD1 Q9trd1 sus	σ		5.5
5 11 Q9QUW9	Un	٩	26
4 2 Q9L7N6 Q917n6 bori	•	19.1	26

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P82394

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# C	So	X DR	RL	RT	RT	R≯	RX	RP	RN	0X	8	8	So	DE	S	S	P	AC	IĐ	Q9BQT0
Query Match 22.1%; Score 30; DB 4; Best Local Similarity 56.7%; Pred, No. 9.9e+02;	SEQUENCE 18 AA; 2179 MW;	Hypothetical protein.	FEBS Lett. 494:99-104(2001).	vault prote	"A small up	Holzmann K., Ambrosch I., Elbling L., Micksche M., Berger W.;	MEDLINE=21195339; PubMed=11297743;	SEQUENCE FROM N.A.	Ξ	NCBI_TaxID=9606;	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Homo sapiens (Human).	HYPOTHETICAL 2.2 KDA PROTEIN.	01-JUN-2001	01-JUN-2001	01-JUN-2001	Q9BQT0;	Q9BQT0	T0
ilarity	18 AA;	brotei	494:99-1	in expre	stream c	, Ambros	95339; P	OM N.A.		9606;	utheria;	Metazoa;	s (Human	L 2.2 KD	(Trembl	(Trembl	(TrembL		PRELIMINARY;	
22.1%;	2179 MW;	35315.17	04(2001)	ssion fr	pen read	ch I., E	ubMed-11				Primate	Chordat		A PROTEI	rel. 17,	rel. 17,	rel. 17,		NARY;	
Score 30;	5D06F94			om a ubic	ing frame	lbling L	297743;				s; Catari	a; Crania		Z.	Last and	(TrEMBLrel. 17, Last sequence update)	(TrEMBLrel. 17, Created)		PRT;	
30; DB	A3F11CB			quitous	cause	., Mick					hini; 1	ita; Ve			otation	uence v			18 AA.	
DB 4; Length 18; 3.9e+02;	5D06F9A3F11CB828 CRC64;			mRNA splice	s inhibition	sche M., Ber					Hominidae; H	rtebrata; Et			(TrEMBLrel. 17, Last annotation update)	ipdate)			•	
18;				vault protein expression from a ubiquitous mRNA splice variant.";	"A small upstream open reading frame causes inhibition of human major	ger W.;					lomo.	releoscom1;								
					or															

DT OCCUPANT

Q90RH8; 01-DEC-2001 (TrEMBLrel. 19, Created) 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)

PRELIMINARY;

PRT;

19 AA

밁 ŝ RESULT

Matches

hes 6; Conser 1 CRVIHPHLP 9 8 CRL--PHLP 14

Conservative

1; Mismatches 0; Indels

2; Gaps

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COOCOOR SERVICE SERVIC
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Best Local
                                                                                                  01-MAY-2000 (TrEMBLrel. 13. Greated)
01-MAY-2000 (TrEMBLrel. 15. Last sequence update)
01-MAR-2011 (TrEMBLrel. 16. Last anotection update)
CYTOCHROME:C REDUCTASE 14 KDA SUBUNIT (EC 1.10.2.2) (FRAGMENT).
Spermatophyta; Magnollophyta; eudicotyledons; core eudicots
                 Mitochondrion, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                            Solanum tuberosum (Potato)
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Ol-JUN-2001 (TrEMBLrel. 17, Last sequence update)
Ol-DEC-2001 (TrEMBLrel. 19, Last sequence update)
HYPOTHETICAL 2.2 KDA PROTEIN (FRAGMENT)
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W Doundou-W Koda H. W., Okesaji J., Wandi M. W., Packa P., Harada Y.,
W Doundou-W Koda H. W., Okesaji J., Wandi M. W., Packa P., Harada Y.,
Wandi M., Wolchiarra H. W., Okesaji J., Wandi M., Wale P., Harada Y.,
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hes 7; Conserv
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53.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 30; DB 11;
Pred. No. 1.1e+03;
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MEDLINE=94198758; PubMed=7764624;
Braun H.P., Kruft V., Schmitz U.K.;
Planta 193:99-106(1994).
                                                                                                                                                       NCBI_TaxID-4113;
                                                                                                                                                                           Asteridae; euasterids I; Solanales; Solanaceae; Solanum
     16 AA;
1946 MW;
BBC625F8E4A4C8E7 CRC64
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Best Local Similarity 2 HQYLPEDL 5 HPHLPKDI 12 Conservative 21.3%; Pred. No. Mismatches 1.2e+03 DB 8; Length Lb; 0 Gaps 0

Ol-NOV-1996 (TrEMBLrel. Ol, Last sequence update)
Ol-DEC-2001 (TrEMBLrel. 19. Last annotation update)
ARGININE VASOPRESSIN VZ RECEPTOR (FRAGMENT). Mammalia; Eutheria; Primates; Catarrhini; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Homo sapiens (Human). 01-NOV-1996 (TrEMBLrel. 01, PRELIMINARY; Created) PRT; 19 AA Hominidae;

SEQUENCE FROM N.A. MEDLINE-95086168; PubMed-7993996;

Indizaman 8.J., Kolakowski L.F.Ar., Gelfman-Holtzman O., O'Brien D.G., Basculpour M., Gulllot A.P., Ausicillo D.A., "Marzikoms in the vasopressin V2 receptor gene in two families with nephrogenic diabetes insplaus." J. Ma., Sec., Nephrof., 5:155-75(1994). EMBL; S75754; AAB32753.1; -

19 AA; 1905 MW; 21.3%; 181640EFD90F2788 CRC64; Pred. No. 1 Score 29; DB 4; . 5e+03 Length 19

Gaps

0

4 HPSLPSCAWASISAQP 19 5 HPHLPKDIVRSIAKAP 20 PRECIMINARY; Conservative PRT; Mismatches 22 AA 8; Indels

01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update) MHC CLASS II ANTIGEN (FRAGMENT).

Oryzias latipes (Medaka fish). Eukaryota, Metazoa: Chordata: Craniata; Vertebrata: Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteka Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha; Neoteleostel

NCBI_TaxID=8090; Beloniformes; Adrianichthyldae; Oryzlinae; Oryzlas.

SEQUENCE FROM N.A.

Naruse K., Oku H., Kojima A., Bessho Y., Kuroda N., Matsuzaki T.,

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RESULT
Q9L7N8
ID Q9L7N8
AC Q0
DT Q
DT Q
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hori H., Shima A., Nonaka M.;
*Molecular cloning and linkage analysis of medaka fish MHC class II
genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-0CT-2000 (TERMELE). 15, Created)
01-0CT-2000 (TERMELE). 15, Last sequence update)
01-0CT-2000 (TERMELE). 15, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                            Gorbacheva V.Y., Godfrey H.P., Caballo F.C.;
*Analysis of the bmp sense family in Borrelia burgdorferi sensu lato.*;
*J. Becterjol._182.2337_29(4000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Borrelia afzelii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BMPD (FRAGMENT).
                                                                                                                                                            01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TREMBLrel. 13, Last sequence update)
ANONEMAL DYNEIN, HEAVY CHAIN (FRACHENT).
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                        NON TEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-20179823; PubMed=10715014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID-29518;
                 Bouwagnet P.:
"Chromosomal localization of human dynein heavy chain genes.":
Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                            Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                           Q9UEM3
                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF222435; AAF45174.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
NON_TER
            EMBL; AJ132092; CAA10565.1; -.
                                                            Maiti A.K., Mattei M.G., Jorissen M., Volz A., Ziegler A.
                                                                         SEQUENCE FROM N.A.
                                                                                               NCBI_TaxID=9606;
                                                                                                                                                    DNAH3.
                                                                                                                                                                                                                                                                                                                   12 IVRSIAKAPGKRA 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7 CRVEHVSLKDPLI 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CRVTHPHLPKDIV 13
                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                             1 IINGIIKAPYDKA 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Spirochaetales; Spirochaetaceae; Borrelia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22 AA;
                                                                                                                                                                                                                                                                                                                                                                                                            24 AA;
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                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2441 MW; E2AF1A9CD581F5FB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                              2681 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    38.5%;
                                                                                                                                                                                                                                                                                                                                                            20.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 2.4e+03;
                                                                                                                                                                                                                                                                                                                                                                                                              57F3887CD59126F9 CRC64;
                                                                                                                                                                                                                                                                                                                                                            Score 28; DB 2;
Pred. No. 2.6e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                   15 AA
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                                                                                                                                                                                                                                                                                                                                                                        Length 24;
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                            Matches
                                                    Query Match
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                                                                                                                                                                                                                                                                                                                      01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                Q9UMI8;
                                                                                                                                                                                                                                                                                                                                                                              81MD60
                                                                                                                                                                                     xing P.X., Tjandra J.J., Reynolds K., McLaughlin P.J., Purcell D.F.J., McKenzle I.F.C.,
                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE-89235154; PubMed=2715633;
                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                            Homo sapiens (Human)
                                                                                              SEQUENCE
                                                                                                           NON_TER
                                                                                                                                      EMBL; M26316; AAA36336.1;
                                                                                                                                                                        "Reactivity of anti-human milk fat globule antibodies with synthetic
                                                                                                                                                                                                                                                       NCBI_TaxID-9606
                                                                                                                                                              peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 KDIVRSIAK 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Match 19.9%;
Local Similarity 44.4%;
                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                               6 KDLAKALAK 14
     19 APGKRAP 25
                                                                                                                                                   Immunol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15 AA;
                                                                                                 20 AA;
                                                                                                                                                   142:3503-3509(1989).
                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                               Conservative
                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1646 MW; 4EDFDA937C826170 CRC64;
                                                                                                 1887 MW;
                                                                                                                                                                                                                                                                                    Chordata; Craniata; Vertebrata; Euteleostomi;
                                            19.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 27; DB 4;
Pred. No. 2.3e+03;
                                  0;
                                                                                                 5B3473EAEBAFAD87 CRC64;
                                               Score 27; DB 4;
Pred. No. 3.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                   20 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4; Length 15.
                                                            DB 4; Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Indels
                                    2; Indels
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                                    Gaps
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B Q9N0J5 RESULT 10 01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-0CT-2000 (TrEMBLrel. 15, Last amoutation update) Q9N0J5 NCBI_TaxID-9491; Saguinus imperator (Tamarin). Bukaryota: Metazoa: Chordatia; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Saguinus. CHAT CHOLINE ACETYLTRANSFERASE (FRAGMENT) SPON60 6 APGSTAP 12 PRELIMINARY; PRT; 21 AA

SEQUENCE "ChAT gene evolution in the mammalian genome."; Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases EMBL; AJ276478; CAB77548.1; ". Transferase. Mubumbila M.V. 21 AA;

SEQUENCE FROM N.A.

19.9%; Score 27; DB 6; Length 21;

2255 MW;

CB5D0293BC3B05AF CRC64:

Query Match

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                                   090028
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Brown S.M., Crouch M.L.,

"Characterization of a gene family abundantly expressed in Oenothera organization polion that shows sequence similarity to polygelacturomage.",
plant Cell 2:283-274(1950).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Omothers organists (Evening primries).
Enkaryots: Viridiplantae: Streptophyts; Bubryophyta: Margonlophyta; sediochyddas; core eudicots; Rosidae; eurosids II Wyrtales; Gasgraceae; cenothera.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2000 (TYEMBLrel. 13, Created)
01-MAY-2000 (TYEMBLrel. 13, Last sequence update)
01-UN-2000 (TYEMBLREL. 14, Last anocation update
POLYGLIACTURONASE HOMOLOG (FRAGNENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE-93005658; PubMed-2152116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Toro G.C., Galanti N., Hellman U., Wernstedt C.;
Toron S.C., Galanti N., Hellman U., Wernstedt C.;
Toron J. Gell. Blochem. 52:431-439(1993),
SEQUENCE 17 AA: 1820 MW; AD19bCC52D8CCD5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-94043510; PubMed-8227175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Trypanosoma cruzi.
Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HISTONE H1 (FRAGMENT).
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01-JUN-2000 (TERMBLrel. 14, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                        1 CTITNAQL-FDITKYGAKGDG 20
                                                                                                                                                                                                                                              1 CRVTHPHLPKDIVRSIAKAPG 21
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9 PKDIVRSIAKAPGKR 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 PILGKDPHKMAAKTP 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   2:263-274(1990).
22 AA: 2289 MW; 2383FFFBA1F3CC70 CRC64;
                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                 38.14;
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                                                                                                                                                                                                                                                                                                                                 Pred. No. 4e+03;
                                                                                                                                                                                                                                                                                                                                                                     Score 26.5;
                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 26.5; DB 5.
Pred. No. 3.1e+03
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                                                                                                                                                                                                                                                                                                    Mismatches
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                             15 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Sus scrofa (Pig).
Bukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
Bukmmalla: Eutheria: Catartiodactyla: Suina: Suidae: Sus.
                                                                                                                 INTEGRIN ALPHA 2 SUBUNIT (FRAGMENT).
                                                                                                                                         01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                  Q95JA2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The mitochondrial long-chain trifunctional enzyme: 2-encyl-CoA hydratase, 3-hydroxyacyl-CoA dehydrogenase and 3-oxoacyl-CoA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-95046784; PubMed-7958339.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-2000 (TERMBLREL. 13, Created)
01-MAY-2000 (TERMBLREL. 13, Last sequence update)
01-JUN-2000 (TERMBLREL. 14, Last sannotation update)
2-ENOYL-COA HYDRATASE (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Blochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   thiolase."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Middleton B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota: Metazoa: Chordata: Craniata; Vertebrata: Euteleostomi.
Mammalia: Eutheria: Primates: Catarrhini: Hominidae; Homo.
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Stetler-Stevenson W.G., Krutasch H.G., Liotta L.A.;
"TIM-72: identification and characterization of a new member of the
metalloproteinase inhibitor femily."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human),
Bukaryota, Metazoa; Chordata; Craniata; Vertebreta; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominides; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10 KDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE IV PROCOLLAGENASE (FRAGMENT).
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5; Conserv
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16 AA; 1763 MW; 31AD66A3
                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
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Pred. No. 3.4e+03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31AD66A3080B019A CRC64;
                                                                                                                                                                                                                                                                            PRT;
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Pred. No. 3.2e+03;
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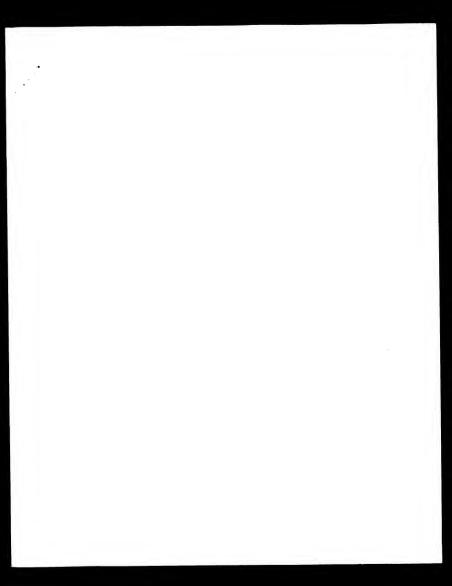
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Optimised Antibody 15A.2 can

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Maximum DB seg length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
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score greater than or equal to the score of the result being printed.
                                                                                                                                                                                                                                          120.5
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Listing first 45 summaries
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Copyright (c) 1993 - 2000 Compugen Ltd
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This is a partial canine immunoglobulin \mathbb E (TgE) protein. Peptide fragments (AAW24098-106) containing at least five continuous amino acids
                                                                                                                     Claim 1; Page 8; 12pp; Japanese.
                                                                                                                                                                                                                                                                                                                               N-PSDB; AAT85646
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                                                                                                                                                                                                   Canine immunoglobulin E peptide fragment and related DNA - useful for the preparation of anti-canine immunoglobulin E antibody
                                                                                                                                                                                                                                                                                                                                                               WPI; 1997-389423/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                             (HITB ) HITACHI CHEM CO LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunogiobulin E: 19E: epailon heavy chain; antigen; antigen; immunogenic; immunostimulatory; carite protein; helper T etal epitope; anticoppin; silergic disease; immunisation; anti-aliergic; anti-anabri/actic, anti-animatic; astima; anabryaats; dermatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of this sequence are used for the preparation of anti-canine IgE antibody. The anti-canine IgE antibody can be used for the diagnosis of
                                                                                                                              acid sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes immunogiobulin E (IgE)-CH3 domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Page 66-68; 155pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-160578/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W09967293-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dog immunoglobulin E epsilon heavy chain SEQ ID NO: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY79995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY79995 standard; Protein; 312 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          canine aliergies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAY-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62 crvthphlpkdivrsiakapgkrap 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CRVTHPHLPKDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunization against allergy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antigenic peptide from the CH3 domain of immunogiobulin E, fusions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Waifield AM
                                                                        312 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0100287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US13959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 136; DB 18;
100.0%; Pred. No. 2.6e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indeis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
            FFFERSSSSSSSSSSS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hest Local Similarity
This polyperude is encoded by exome 1-1 (see AAY9978) of conine is the hope of the conine is the hope of the conine is the hope of the conine is the conine 
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                                                                                                                                                                                                                                                       Disclosure; Page 35-39; 59pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (IDEX -) IDEXX LAB INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Misc-difference 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
Misc-difference 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Canis tamiliaris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Canine IgE heavy chain constant region (exon 1-4 product).
                                                                                                                                                                                                                                                                                                                                           Isolated canine IgE heavy chain constant region DNA - useful to develop products for treatment of canine allergies and for
                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-425031/39
N-PSDB; AAT79278.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09730156-AZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IgE: immunoglobulin; antibody; heavy chain constant region;
allergy; hypersensitivity; therapy; dog; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-FEB-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW23067;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW23067 standard; Protein; 417 AA
                                                                                                                                                                                                                                                                                                                   LMMunomodulation in dogs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           192 crvthphlpkdivrsiakapgkrap 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CRVTHPHLPKDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mermer B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96US-0601197
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "encoded by TGN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note- *encoded by NNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "encoded by GCC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'note= "encoded by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note- "encoded by ACC
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100.0%; Pred. No. 7.4e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sierring AE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "encoded by GAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "encoded by GGN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "encoded by TAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 312;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The castic jet mainto acid sequence (AMS7733) was deduced from an isolated gene (AMS7834) obta (from a canise liver DMA Libra) from a Contag Libra DMA Libra (MA Libra) for the clouding of the jet gene allows peods, of large quantities of recombinant jet using bacteria to warm of comment of the contagency of the conta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Canis familiaris
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-AUG-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR97753 standard; Protein; 426 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immediate hypersensitivity, and for immunomodulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hollis GF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W09614867-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IgE; immunoglobulin; antibody; vaccine; allergy; hypersensitivity.
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 11; Page 29-30; 49pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New DNA encoding canine IgE and IgA - useful in vaccines, antisense therapy, assays, drug screening, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1996-277321/28.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      289 crvthphlpkdivrsiakapgkrap 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            reponses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4-PSDB; AAT29824
                                                                                              294 crvthph1pkdivrsiakapgkrap 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                  1 CRVTHPHLPKDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       417 AA;
                                                                                                                                                                                                                                                                                                                                                                                                               426 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patel MD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9408-0336583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9405-0336891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95WO-US13795
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                                                                                                                                                                                                                                             ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 136; DB at No. 1e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.
                                                                                                                                                                                                                                             Score 136; DB 17;
pred. No. 1.1e-12;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 417;
                                                                                                                                                                                                                                                                                                                Length 426;
                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is an immunogenic peptide consisting of the heavy chain constant regions 2 and 4 of the presum mig gas and the heavy chain constant regions 3 from the doy, it was shown to course a stronger polyclocal and itself 185 response than peptides consisting of the same regions from one mammal. Immunogenic peptides, particularly those consisting of the same regions from one mammal throughest peptides, particularly those consisting of the same regions from the same to consist the potter and the same for consisting of the same same that the consist through the same for consisting of the same same for the same same same in the period of allergies and excess.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB06208 standard; protein; 341 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chimeric - Canis sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chimeric - Didelphis virginiana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             asthma; eczema; immunogenic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunogenic peptide consisting of opossum CH2, dog CH3 and opossum CH4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure: Fig 2; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (RESI-) RESISTENTIA PHARM AB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200025722-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB03643;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunogenic polypeptides useful for preventing the harmful effects of immunoglobulin {\mathbb F} in mammals -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-365342/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hellman LT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-MAY-2000
                                                      WO200025722-A2
                                                                                                                                                                                      asthma; eczema; immunogenic peptide
                                                                                                                                                                                                                 Rat; immunoglobulin E; IgE; vaccination; infection; allergy;
                                                                                                                                                                                                                                                                                     Rat IgE heavy chain constant regions 2, 3 and 4.
                                                                                                                                                                                                                                                                                                                                                                22-NOV-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB03643 standard; protein; 340 AA
                                                                                                                   Rattus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          211 crvthph1pkdivrsiaklpgkrlap 236
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 120.5; DB :
Pred. No. 2.1e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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Indels Length 341;

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AAW24102
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AAW24098-106 are peptide fragments containing at least 5 continuous
                                                                                         Claim 2; Page 9; 12pp; Japanese
                                                                                                                                                                                           Canine immunoglobulin E peptide fragment and related DNA - useful
                                                                                                                                                             for the preparation of anti-canine immunoglobulin E antibody
                                                                                                                                                                                                                                                                                            N-PSDB; AAT85651
                                                                                                                                                                                                                                                                                                                                  WPI; 1997-389423/36.
                                                                                                                                                                                                                                                                                                                                                                                                     (HITB ) HITACHI CHEM CO LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-DEC-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunoglobulin E; IgE; anti-canine IgE antibody; allergy; canine; dog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canine immunoglobin E peptide 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is an immunogenic peptide consisting of the beary Chain constant regions 2, and 4 of the rat right it was used to go from all managenic peptides which consisted of regions of go from all managenic peptides which consisted of regions of the form of the consisted of regions and the consistence of all ferent heavy chain consistent regions, can be used for reachastion on managenic managenic peptides, particularly those consistence of the consistenc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW24102 standard; peptide; 20 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200 crvdhphfpkpivrsitkapgkrs 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-365342/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hellman LT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (KESI-) RESISTENTIA PHARM AB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunogiobulin E in mammals .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-NOV-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CRVTHPHLPKDIVRSIAKAPGKRA 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95JP-0334381
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 5.1e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 340;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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Immunogenic peptide consisting of opossum CH2, rat CH3 and opossum CH4
                                                                                                                                                                                                  22-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                      AAB06206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB06206 standard; protein; 341 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acids of the partial canine immunoglobulin E (19E) protein shown in ANWAG97. The pertides are used for the preparation of anti-canine ignormalized the control of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCAL Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 crvthphlpkdivrsiaka 20
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                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 102; DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 6.1e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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Chimeric - Didelphis virginiana astnma; eczema; immunogenic peptide opossum; immunoglobulin E; IgE; vaccination; infection; allergy;

21-OCT-1999; 11-MAY-2000 W0200025722-A2 Chimeric - Rattus sp. 99WO-SE01896

Hellman LT (RESI-) RESISTENTIA PHARM AB 22-SEP-1999; 98US-0106652 99US-0401636

02-NOV-1998;

WPI; 2000-365342/31

Immunogenic polypeptides useful for preventing the harmful effects of immunoglobulin E in mammals .

Disclosure; Fig 2; 50pp; English.

The present sequence is an immunogenic perties consisting of the Meavy chain constant regions 2 and 4 of the openum light and the heavy chain constant regions 3 from the rat. It was shown to couse a stronger has polycional narises if IgE response than perties consisting of the regions in the rate. Immunogenic peptides, particularly those requirements of officerent heavy chain content regions, can be used for rectining of officerent heavy chain content regions, can be used for rectining of officerent heavy chain outburn regions, can be used for rectining of the Sequence 341 AA;

Query Match Best Local Similarity 73.2%; Score 99.5; DB 21; Pred. No. 3.7e-07 Length 341;

Š 1 CRVTHPHLPKDIVRSIAKAPGKR-AP 25 Conservative 0 Mismatches Indels

Gaps

Matches

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AAB06205
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                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                regions from one mammal. Immunogento Peptides, particularly those consisting of different heavy chain constant regions, can be used for vaccination in humans, against bacterial and viral infections and salteryles, such as asthms, fur, pollen and food slateryles and excema.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is an immunogenic peptide consisting of the heavy chain constant regions 2 and 4 of the openum 1g8 and the heavy chain constant region 3 from the human. It was shown to cause a stronger polychonal anti-self IgE response than peptides consisting of the same regions from one mammal. Immunogenic peptides, particularly those regions from one mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chimeric - Didelphis virginiana
Chimeric - Homo sapiens.
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Chimeric - Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 2; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunogenic polypeptides useful for preventing the harmful effects of immunoglobulin {\mathbb E} in mammals \mbox{-}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-365342/31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (RESI-) RESISTENTIA PHARM AB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-NOV-1998;
22-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-MAY-2000
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                         Chimeric - Dideiphis virginiana
                                                                       asthma; eczema; immunogenic peptide
                                                                                                                                                    Immunogenic peptide consisting of opossum CH2, pig CH3 and opossum CH4
                                                                                                                                                                                                       22-NOV-2000 (first entry)
                                                                                                                                                                                                                                                               AAB06207;
                                                                                                                                                                                                                                                                                                                  AAB06207 standard; protein; 345 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                            212 crythphlpralmrsttklpgkrlap 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CRVTHPHLPKDIVRSIAKAPGKR-AP 25
                                                                                                      opossum; immunoglobulin E: IgE; vaccination; infection; allergy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      eczema; immunogenic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       342 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0106652
99US-0401636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-SE01896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunoglobulin E; IgE; vaccination; infection; allergy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.2%; Score 95.5; DB 21
69.2%; Pred. No. 1.5e-06;

    Mismatches

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 342;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY50893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        allergies, such as asthma, fur, pollen and food allergies and eczema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       regions from one mammal. Immunogenic peptides, particularly those consisting of different heavy chain constant regions, can be used for vaccination in humans, against bacterial and viral infections and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is an immunogenic peptide consisting of the heavy chain constant regions 2 and 4 of the possum igs and the heavy chain constant regions 3 from the pig. It was shown to couse a stronger polyclosal anti-seal igs response than peptides consisting of the same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 2; 50pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-NOV-1998;
22-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-OCT-1999,
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Binding proteins used for treatment or prophylaxis of canine allergy
                                                        WPI; 2000-040833/04
                                                                                                      Lawton R, Mermer B,
                                                                                                                                                         (IDEX-) IDEXX LAB INC
                                                                                                                                                                                                                 30-MAR-1999;
                                                                                                                                                                                                                                          09-APR-1998;
                                                                                                                                                                                                                                                                                             09-APR-1999
                                                                                                                                                                                                                                                                                                                                                17-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                              EP957111-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    epitope; prophylaxis; treatment; mimotope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Canine; allergy; antibody 15A.2; IgE; B cell; mast cell; anti-allergy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antibody 15A.2 binding peptide 10 from PhDc7c phage display library.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-FEB-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY 50893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY50893 standard: peptide; 17 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunogenic polypeptides useful for preventing the harmful effects of immunoglobulin {\mathbb B} in mammals -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-365342/31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W0200025722-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
hes 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CRVTHPHLPKDIVRSIAKAPGKR-AP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0401636
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                                                                                                           Francoeur G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 3
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DB 21; Indels Length 345; ۲. Gaps

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                                                                    This invention describes a overl binding protein which specifically binds to mative entire free or Berell bown 195, and which describ bind to 195 when the 196 its bound to mast cells. The peptide products of the invention have enti-largit eartivity. The artibioties bind to defined epitops on free or Berell bound 195 molecules which have an important tode in a limit of section. The specific binding proteins are used to make use disminustration composition, predenably with a diluent, which we want demonstrate composition, predenably with a diluent, which was the section when the section of the section
invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 7; 30pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Binding proteins used for treatment or prophylaxis of canine allergy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WP1: 2000-040833/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-APR-1999;
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epitope; prophylaxis; treatment; mimotope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This invention describes a novel binding protein which specifically binds to mattre cannie free or sevel bound 1g, and which deservit bind to 1g9 when the 1g8 is bound to mast cells. The peptide products of the invention have anti-largic activity. The anticoles bind to defined epitopse on free or m-cell bound 1gs molecules which have an important tols in allergist exection. The specific binding proteins are used to produce a pharmacentical composition, preferably with a dilument, which were now second prophylaxis of undesserior of coults a litery.
                             AAY50876-Y50900 represent peptide mimotopes used in the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (IDEX-) IDEXX LAB INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-NOV-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-FEB-2000 (first entry)
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100.0%; Pred. No. 5.2e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
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RESULT
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                                                                          or The present invention describes immunoglobulns (1987-094 domain cartenin periods (1), (1) here on richalery (1), and the polyhobat and the proposed of the cartenin periods (1), (1) honose polyhobat antibodies (1), (2) here of the cartenin periods (1) honose polyhobat antibodies (1), (2) sentific (2) as the proposed of mate calls and basephis and operate (1) as the cartenin periods (2) and activation of mate calls and basephis and cartenin (2) as the cartenin periods (2) and basephis (2) as the cartenin periods (2) and cartenin (2) as the cart
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Sequence
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100.0%; Fred. No. 5.2e-07;
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                              65.4%; Score 89; DB 21; Length 25; 100.0%; Pred. No. 8e-07; tive 0; Mismatches 0; Indels
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Query Match

Local Similarity

Sequence

17 AA

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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
AAY80083 standard; Peptide; 45 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              acid sequences used in the exemplification of the present invention.
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                                                                                                                                                                                                                                                                     2 RVTHPHLPKDIVRSIAK 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antigenic peptide from the CH3 domain of immunoglobulin E, fusions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Walfield AM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  45 AA;
                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                980S-0100287
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                                                                                                                                                                                                                                                                                                                                 100.08;
                                                                                                                                                                                                                                                                                                                                                                             Score 89; DB 21; Length 45;
Pred. No. 1.6e-06;
                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                        0; Indels
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Sequence
                                                                                                                                                                   Claim 14; Page 77; 155pp; English.
                                                                                                                                                                                    for immunization against allergy
                                                                                                                                                                                          New antigenic peptide from the CH3 domain of immunoglobulin E, fusions
                                                                                                                                                                                                               WPI; 2000-160578/14.
                                                                                                                                                                                                                                Wang CY, Walfield AM;
                                                                                                                                                                                                                                                 (UNBI-) UNITED BIOMEDICAL INC
                                                                                                                                                                                                                                                                   20-JUN-1998;
                                                                                                                                                                                                                                                                                    21-JUN-1999;
                                                                                                                                                                                                                                                                                                     29-DEC-1999
                                                                                                                                                                                                                                                                                                                      W09967293-A1
                                                                                                                                                                                                                                                                                                                                    Unidentified
                                                                                                                                                                                                                                                                                                                                                  immunogiobulin B; 19B; epsilon heavy chain; antigenic; antigen;
lmmunogenic; immunostimulatory; carrier protein; helper T cell epirope;
antibody; aliarys; aliargis disease; immunisation, anti-aliargis;
anti-anaphylactic; anti-asthmatic; asthma; anaphylaxis; dermatitis,
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY80083;
                                                                                                                                                                                                                                                                                                                                                                                              IGE immunogenic peptide conjugate SEQ ID NO:90
                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-2000 (first entry)
45 AA;
                                                                                                                                                                                                                                                                   98US-0100287
                                                                                                                                                                                                                                                                                   99WO-US13959
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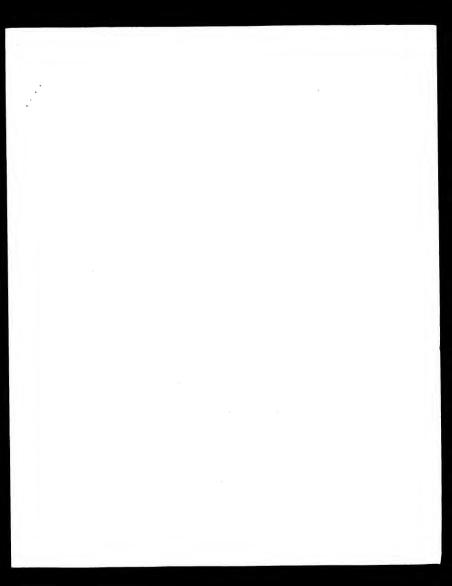
Best Local Statiantry 100 Me 0; Mismatches 6; Indels 0; Gaps

Matches 17; Construtive 0; Mismatches 6; Indels 0; Gaps

Of 2 RYSHELPSINYSIAX 18

Db 28 rthphlpdivrsia4 44

Search complete: 38 sec 314 15, 2002, 12:45:17
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Run on

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Database :
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Maximum Match 1008
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and is derived by analysis of the total score distribution
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed.
                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                         Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Issued_Patents_AA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         231628 segs, 24425594 residues
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     July 15, 2002, 12:45:19; Search time 12.97 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/2/iaa/58_COMB.pep:*
/cgn2_6/ptodata/2/iaa/58_COMB.pep:*
/cgn2_6/ptodata/2/iaa/68_COMB.pep:*
/cgn2_6/ptodata/2/iaa/68_COMB.pep:*
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              US-09-303-33-99
US-09-303-33-99
US-09-303-33-99
US-09-303-33-101
US-09-303-33-101
US-09-303-33-101
US-09-303-33-3-96
US-09-303-33-96
US-09-303-33-99
US-09-303-33-99
US-09-303-33-99
US-09-303-33-99
US-09-303-33-99
US-09-303-33-99
US-09-303-33-99
US-09-303-33-99
                                                                                                                                                                                                                      NS-08-38-583-2
PCT-1898-1379-2
US-08-232-5390-54
US-08-232-5390-56
US-08-466-131-1
US-08-466-131-1
US-08-464-1258-1
US-09-100-4148-9
US-09-100-4148-9
US-09-100-4148-9
US-09-100-4148-9
     US-08-646-981-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
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                                                                                                                                                                                                                                  Sequence 2, Appli
Sequence 2, Appli
Sequence 54, Appli
Sequence 1, Appli
Sequence 16, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 95, Appl
Sequence 95, Appl
Sequence 95, Appl
Sequence 95, Appl
Sequence 99, Appl
                                                                                    Sequence 101,
Sequence 101,
Sequence 96, A
Sequence 97, A
Sequence 97, A
Sequence 97, A
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Sequence 95,
Sequence 98,
Sequence 100,
Sequence 98,
Sequence 99,
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              Sequence
밁
                                                                                                                                                 ; MOLECULE TYPE: protein
US-08-336-583-2
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                                                                        Matches
                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                patent No. 5629415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 424
ATTORREY/AGENT INFORMATION:
NAME: CARTY, CHRISTINE E.
REGISTRATION NUMBER: 36,0
REGISTRATION NUMBER: 10,0
                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 09-NOV-191
                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: DNA ENCODING CANINE IMMUNOGLOBULIN NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: HOLLIS, GREGORY F. APPLICANT: PATEL, MAYUR D.
              294 CRVTHPHLPKDIVRSIAKAPGKRAP 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP:
                                                                                    Local Similarity
                                                                                                                                                                        STRANDEDNESS:
TOPOLOGY: 11
                                                                                                                                                                                                        TYPE:
                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                  TELEFAX:
                                                                                                                                                                                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET
                                        1 CRVTHPHLPKDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
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                                                                                                                                                                                                     amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07065-0900
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                                                                                                                                                                                                                   426 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           126 E. LINCOLN AVENUE
                                                                                                                                                                                                                                                            (908) 594-6734
(908) 594-4720
                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                            PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37.11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHRISTINE E. CARTY
                                                                                                                                                                                                                                                                                                                                                                                   09-NOV-1994
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                                                                                    100.0%; Score 136; DB 1;
100.0%; Pred. No. 1.9e-13;
                                                                                                                                                                                                                                                                                                                                                                                                  US/08/336,583
                                                                                                                                                                                                                                                                                                                      36,099
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US-09-375-419-20
US-08-630-172-19
US-09-375-419-19
US-09-375-419-19
US-09-375-419-19
US-09-375-419-29-7
US-08-470-299-10
US-08-875-533-41
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US-09-310-187A-1

US-07-916-098A-45

US-08-808-720-3

US-08-808-720-3

US-08-808-720-5

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                                                                     Mismatches
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                                                                                                  Length 426;
                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 5, Appli
Sequence 7, Appli
Sequence 20, Appl
Sequence 20, Appl
Sequence 19, Appl
Sequence 19, Appl
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Sequence
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Sequence 47, Appl
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US-08-232-539D-54
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SEQUENCE HARACTERISTICS:
TYPP: 426 amin
                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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                                                                                                                                                                                                                                                                                                                                             Sequence 54, Application US/08232539D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 136; DB 5; Length 426; Best Local Similarity 100.0%; Pred. No. 1.9e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPTER READABLE PORM:
MEDIUM TYRE: Floapy disk
COMPTER: TBM PC COMPATAIN
COMPTER: TBM PC COMPATAIN
OPERATING SISTEM: PC-DOS/MS-DOS
SOFTWARE: Psteniin Release #1.0, Version #1.25
              COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch. 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS-DOS
SOFTWARE: Min'buin (GenenLech)
                                                                                                                                                                                                                                   APPLICANT: Presta, Leonard G.
APPLICANT: Jardieu, Paula M.
TITLE OF INVENTION: IGE Antagonists
NUMBER OF SEQUENCES: 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: DNA ENCODING CANINE IMMUNOGLOBULINS NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: HOLLIS, GREGORY F.
APPLICANT: PATEL, MAYUR D.
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                      294 CRVTHPHLPKDIVRSIAKAPGKRAP 318
                                                                                                          ZIP:
                                                                                                                                                            CITY:
                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CRVTHPHLPKDIVRSIAKAPGKRAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: CARTY, CHRISTINE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 07065-0907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: CHRISTINE E. CARTY
STREET: 126 E. LINCOLN AVENUE; P.O. BOX 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET:
                                                                                                                            COUNTRY
                                                                                                                                             STATE:
                                                                                                                                                                                                   ADDRESSEE:
                                                                                                              94080
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                                                                                                                                                            South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NEW JERSEY
                                                                                                                                          California
                                                                                                                                                                                 1 DNA Way
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                                                                                                                            USA
                                                                                                                                                                                                   Genentech, Inc.
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   ; Sequence 56, Application US/08232539D ; Patent No. 5965709
                                       US-08-232-539D-56
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Conservative

Mismatches

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US-08-232-539D-54
                                                                                                                                                                  SEC ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Query Match 57.4%; Score 78; DB 4; Length 109; Best Local Similarity 61.9%; Pred. No. 4.5e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/08466163B
Patent No. 6329509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 57.4%; Score 78; DB 2; Length 106;
Best Local Similarity 61.9%; Pred. No. 4.3e-05;
                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/08/466,1638
CURRENT ELLEN DATE: 195-06-06
RRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 195-03-15
PRIOR FILING DATE: 195-03-15
                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: P0718P2C1D1
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 64
                                                                                                                                                                                                                                               PRIOR FILING DATE: 1992-05-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Jardieu, Paula M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 54:
                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 14-AUG-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                             LENGTH: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84 CRVTHPHLPRALMRSTTKTSG 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
FILING DATE: 07-JA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CRVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: 650/225-1489
TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/232,539D
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Svoboda, Craig G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Linear
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N: 530
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 Mismatches

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US-09-100-414B-99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                             Matches
                                                                                           Best Local Similarity
                                                                                                                Query Match
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                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 1
TELECOMMUNICATION INFORMATION
TELEPHONE: 212-758-4800
TELEFAX: 212-751-6849
INFORMATION FOR SEQ ID NO: 99:
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                                                                                                                                                                                   MOLECULE TYPE: peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: NOVEL LHRH PEPTIDE
TITLE OF INVENTION: INMUNGENS
NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: peptide
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TELEPHONE: 212-758-4800
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                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                          TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25 RVTHPHLPRALMRSTTK 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     y Match 47.1%; Score 64; DB 3; Length 42;
Local Similarity 64.7%; Pred. No. 0.0023;
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       25 RVTHPHLPRALMRSTTK 41
                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 29,32:
                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE:
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                                                                                                                                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                     NAME:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                          2 RVTHPHLPKDIVRSIAK 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10154-0054
                                                                                                                                                                                                                          amino acid
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                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Word 97
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             E: Floppy disk
IBM PC compatible
SYSTEM: PC Windows
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                                                                                           47.1%; Score 64; DB 3; Length 42; 64.7%; Pred. No. 0.0023;
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 Mismatches

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 Indels

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                                                                                                                                                                                                                                                                                                                                              US-09-303-323-98
                                                                                                                                                                                                                                                                                                           Sequence 98, Application US/09303323
Patent No. 6228987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC Windows
SOFTWARE: Word 97
                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                    APPLICANT: Wang, Chang Yi
TITLE OF INVENTION: NOVEL LHRH
TITLE OF INVENTION: IMMUNOGENS
                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                 25 RVTHPHLPRALMRSTTK 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        y Match (47.1%; Score 64; DB 3; Length 42; Local Similarity 64.7%; Pred. No. 0,0023; hes 11; Conservative 3; Mismatches 3; Indels
                                                                                                             COUNTRY
                                                                                                                              STATE:
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                                                                                           10154-0054
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CURRENT APPLICATION DATA:

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Morgan & Finnegan, L.L.P.

NOVEL LHRH PEPTIDE

0; Gaps ç

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APPLICATION NUMBER: US/09/303,323

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US-09-100-414B-100
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: Patent No. 6025468
: GENERAL INFORMATION:
                                                                                                         INFORMATION FOR SEQ ID NO:
                  MOLECULE TYPE: peptide
                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-758-4800
                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC Windows
SOFTWARE: Word 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Wang, Chang X1
TITLE OF INVENTION: NOVEL LHRH PEPTIDE
TITLE OF INVENTION: IMMUNOSENS
                                                                                          SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
                                    TOPOLOGY:
                                                                        LENGTH:
                                                                                                                              TELEFAX:
                                                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                         NAME: Maria H. Lin
                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09
FILING DATE: 20-JUNE-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE:
                                                                                                                                                                                                   REGISTRATION NUMBER: 29,323
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                                                                        42 amino acids
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                                                                                                                              212-751-6849
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                                    linear
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US-09-303-323-99 peptide
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Patent No. 622807
GENERAL INFORMATION: NOVEL LHRN PEPTIOE
TITLE OF INVENTION: NOVEL LHRN PEPTIOE
TITLE OF INVENTION: INVUNOCENS
TITLE OF INVENTION: 1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 47.1%; Score 64; DB 4; Best Local Similarity 64.7%; Pred. No. 0.0023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                             INFORMATION FOR SEO ID NO: 99:
SEQUENCE CHARACTERISTICS:
LENGTH: 42 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 212-751-6849
INFORMATION FOR SEQ ID NO: 98:
                                                                                                                                    REGISTRATION NUMBER: 29,323
REFERENCE/DOCKET NUMBER: 11
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-758-4800
                                                                                                                                                                                                                         FILING DATE: 20-JUNE-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM
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LENGTH: 42 amino acids
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TELEPHONE: 212-758-4800
TELEFAX: 212-751-6849
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                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC Windows
SOFTWARE: Word 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25 RVTHPHLPRALMRSTTK 41
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REFERENCE/DOCKET NUMBER:
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                                                                                                                          TELEFAX:
                                                                                                                                                                                                           NAME:
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/303,323
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                                               i: 42 amino acids
amino acid
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amino acid
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IBM PC compatible
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    Indels

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Search completed: July 15, 2002, 12:45:40 Job time: 21 sec

25 RVTHPHLPRALMRSTTK 41

2 RVTHPHLPKDIVRSIAK 18

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US-09-303-323-100
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            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 6228987
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Best Local Similarity 64.7
Matches 11; Conservative
Matches
                                                                                                                                                                            TELEPHONE: 212-758-4800
TELEPHONE: 212-758-4800
TELEPHONE: 212-751-6849
INFORMATION FOR SEQ ID NO: 100:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 42 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/100,414
                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Wang, Chang Yi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
FILING DATE: 30-APR
                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25 RVTHPHLPRALMRSTTK 41
                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 29,32
                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100, Application US/09303323
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                                                                                                                                                                                                                                                                            Maria H. Lin
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Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            Word 97
                                                                                                               Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                      IBM PC cu
                                                                                                                                                                                                                                                                                                               20-JUNE-1998
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            47.1%; Score 64; DB 4; Length 42;
64.7%; Pred. No. 0.0023;
                                                                                                                                                                                                                                                                                                                                                                                                                                         PC Windows
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IMMUNOGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         47.1%; Score 64; DB 4; Length 42; 64.7%; Pred. No. 0.0023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOVEL LHRH PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         106
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Mismatches

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US-08-466-151-1
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                                                                                                                                                                                                                                                                                                            Patent No. 6037453
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                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION
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      CURRENT APPLICATION DATA
             COMPTER READABLE PORM:
MEDIUM TYPE: 3 5 inch, 1.44 mb floppy disk
COMPTER: IEM PC COMPATEN:
OPERATING SYSTEM: PC DOSG/MS-DG
SOFTMARE: HiPRIIM (Genentech)
                                                                                                                                                                                                               CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                    APPLICANT: Jardieu, Paula M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 113 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 07/7
FILING DATE: 14-AUG-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 07-JAN-1994
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: NEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS
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APPLICANT: Jardieu, Paula M.
TITLE OF INVENTION: IgE Antagonists
NUMBER OF SEQUENCES: 60
                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                FITLE OF INVENTION: Immunoglobulin Variants NUMBER OF SEQUENCES: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 y match 57.4%; Score 78; DB 2; Local Similarity 61.9%; Pred. No. 4.7e-05;
                                                                                                                            COUNTRY
                                                                                                                                          STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                              91 CRVTHPHLPRALMRSTTKTSG 111
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FILING DATE: 07-JP
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FILING DATE: 21-Apr
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OPERATING SYSTEM: PC-DOS/MS
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CITY: South San Francisco
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                                                                                                                                                                                                                                                                  Presta, Leonard G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 650/952-9881
                                                                                                                            USA
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                                                                                                                                                                                                 Genentech, Inc.
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NN: 530
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INFORMATION FOR SEQ ID NO: 1:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                    COMPUTER BEADMALE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM NC COMPUTEN: COMPUTER:
OPERATING SYSTEM: NC-DOS/MS-DOS
SOFTMARE: NinPatin (Genericeth)
                                                REGISTRATION NUMBER: 39,044
REFERENCE/DOCKET NUMBER: PO
TELECOMMUNICATION INFORMATION:
                                                                                                                     CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                     APPLICATION NUMBER: US,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/7-
FILING DATE: 14-AUG-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
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                    TELEFAX:
                               TELEPHONE:
                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                       STATE
                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Genentech, Inc
STREET: 1 DNA Way
CITY: South San Francisco
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      y Match 49.6%; Score 67.5; DB 3; Length 118; Local Similarity 59.1%; Pred. No. 0.0022;
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                                                                                                                                                                                                                                                                                                               COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Svoboda, Craig G.
REGISTRATION NUMBER: 39
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER
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. 5994514
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Amino Acid
                                                                                                       Svoboda, Craig
                                                                                                                                                                                                                                                                                                                                    California
                 650/952-9881
                                                                                                                                                                                                                                                                                                                   USA
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                                                                                                                                                       05-Jun-1995
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                                                                                                                                                                            US/08/464, 025#
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1; Gaps

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US-09-303-323-95
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Sequence 93, Application US/09303323
Patent No 0228887
GENERAL, INFORMATION:
APPLICATE: Wang, Chang Yl
TITLE OF INVENTION: MOYEL LHRH PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Wang,
                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 95:
SEQUENCE CHARACTERISTICS:
LENGTH: 25 amino acids
                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-758-4800
TELEFAX: 212-751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC WINDOWS
SOFTWARE: WORD 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: IMMUNOGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wang, Chang Yl
TITLE OF INVENTION: NOVEL LHRH PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 119 amlno acids
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                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
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STREET: 345 Park Avenue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Marla H. Lin
REGISTRATION NUMBER: 29,323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
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                                                                                                                                                                      8 RVTHPHLPRALMRSTTK 24
                                                                                                                                                                                                          2 RVTHPHLPKDIVRSIAK 18
                                                                                                                                                                                                                                           11; Conservative
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    25 amino acids
amino acid

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-JUNE-1998
                                                                                                                                                                                                                                    47.1%; Score 64; DB 3; Lengum ==: 64.7%; Pred. No. 0.0012; Indels
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US-09-303-323-95 peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPOMUNICATION INFORMATION:
TELEPHONE: 212-759-4800
TELEPAX: 212-751-689
INFORMATION FOR SEQ ID NO: 95:
SEQUENCE CURRACTERISTICS:
LENGTH: 25 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 47.1%; Score 64; DB 4; Length 25.
Best Local Similarity 64.7%; Pred. No. 0.0012;
                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                   APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                 APPLICANT: Wang, Chang Y1
TITLE OF INVENTION: NOVEL LIRH PEPTIDE
TITLE OF INVENTION: IMMUNOGENS
NUMBER OF SEQUENCES: 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Morgan & Finnegan, L.L.P.
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                              COMPUTER READABLE FORM
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                 CLASSIFICATION: 424
                                                                                         OPERATING SYSTEM:
SOFTWARE: Word 9
                                                                                                                                                                                                                               CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 RVTHPHLPRALMRSTTK 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 09/100,414
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FILING DATE: 30-A
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SOFTWARE: Word 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE:
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                                     FILING DATE: 20-JUNE-1998
                                                                                                                           COMPUTER:
                                                                                                                                         MEDIUM TYPE: Floppy disk
                                                                                                                                                                            ZIP: 10154-0054
                                                                                                                                                                                                COUNTRY:
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REGISTRATION NUMBER: 29,323
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
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                                                                                                                                                                                                                  STATE:
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XGY: linear
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                                                                                         Word 97
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IBM PC compatible
SYSTEM: PC Windows
                                                                                                                        IBM PC compatible
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                                                       US/09/100,414B
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NAME: Maria H. Lin

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pred. score and i		is the : ter than ived by	No. is the number of r greater than or equal derived by analysis o	results l to the of the	predicted by chance to have a score of the result being printed, total score distribution. ARTES	
Result.	Score	Query Natch L	Length DB	ID	Description	
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ALIGNMENTS

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cispecias Battus normegicus (Normay rat) - ner-1962 *text_change 16-7ul-1999 ciphetes: 17-pec-1982 #sequence_revision 17-pec-1982 *text_change 16-7ul-1999 ciphetesion: A party revision 17- per-1982 *text_change 16-7ul-1999 ciphetesion: Normerows 17- per-1982 *text_change 18-7ul-1999 ciphetesion: A party revision: 18-1ul-1999 ciphetesion: Normerows and evolution of the heavy chain from rat immunoglobalin E. Agenteroe number: A3442; MUD:1306633) *Agenteroe number: A3442; MUD:1306633

a; Experimental source: strain LOU/c/Wsl, immunocytoma IR2 R; Rindswogel, W.R.; Reddy, E.P.; Moore, J.M.; Faust Jr., C.H. DNA 1, 335-343, 1982 A; Molecule type: mRNA A; Residues: 1-429 <HEL>

Negliki A lined dDNA probe for rat immunoglobnin epsilon heavy chair: construction A squeezeo, number: A50357; MCID:83182019
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Query Match Local Similarity 79.28; Score 105; DB 1; Length 429; Pred. No. 2.4e-07;

Matches

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Mismatches

Indels 0:

RESULT N

Ig epsilon-chain - chimpanzes (fragment) C.Speckes: Pan troplody-sem (chimpanzes) C.Speckes: Pan troplody-sem (chimpanze) C.Date: 04-0ct_1956 Sesuremez_revision 04-oct-1996 #text_change 21-Jan-2000

I36948

Kestoyama Y.; Nong, K. Restoyama Y.; Nong, K. A.;Title: Nuclectide sequences of immunosibulin epsiton genes of chimpanzes and orang A.Reference number: 15448; NUCLECTION 174715

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538 2 A839/2

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AlMolecule type: protein
AlMolecule type: protein
                                                                                                                                                        A:Reference number: A94418
A:Accession: A94418
                                                                                                                                                                                                                                                     A:Note: this sequence difference may be due to polymorphism R:Bennich, H.H.; Johansson, S.G.O.; Von Behr-Lindstrom, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A:Cross-references: GB:L00022; GB:J00227; GB:V00555; NID:g185035
R:Max. E.E.; Battey, J.; Ney, R.; Kirsch, I.R.; Leder, P.
Cell 29, 691-699, 1982
                                                                                                                                                                                                                                                                                                                                                  A:Cross-references: GB:J00222; NID:g184755
                                                                                                                                                                                                                                                                                                                                                                                             A: Molecule type: DNA
A: Residues: 1-358, 'L', 360-428 <MAX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A.7Itle: Duplication and deletion in the human immunoglobulin epsilon genes A;Reference number: A90824; MUID:83001945
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A: Rosdinos: 120-185 etally
A: Cross -references: RMA1-X5693; GB:S38668; NID:92-997
R: Seno, M.F. Murchewar, 7., Onc. F.; Onder, H.; Senada, R.; Igarashi, K.; Kikuchi, M.; Sugl
N: Cross - MacQuiat Coloring and non-locatide sequencing of human lemanoglobulin epsilon cha
N: Reference number: N3381; MUID:83168897
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A:Residues: 1-428 <SEN>
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R;Zhang, K.; Saxon, A.; Max, E.E.
J. Exp. Med. 176, 233-243, 1992
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R:Uedd, S.; Maral, S. H.Hshida, Y.; Hisajima, H.; Honjo, T.
BMBO J. 1, 1539-1544, 1982
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Cispectus: Homo sapions (pas)
Cispectus: 11-mc-139, test_change 16-ul:1999
Cispec
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A:Reference number: A23195; MOID:84207910
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A:Reference number A22771; MUID:84236025
A:Accession: A2271.
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EMBO J. 1, 655-660, 1982
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C:Superfamily: immunoglobulin C region; immunog
F:336-405/Domain: immunoglobulin homology <IMMy
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A:Status: preliminary: translated from GB/EMBL/DDBJ
A:Molecule type: DNA
A:Residues: 1-426 <RES>
                                                                                                                                                                                                  Immediate Hypersensitivity: Modern Concepts and Developments,
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Pesidues: 2-428 <UED>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unoglobulin C region; immunoglobulin homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             66.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 89; DB 2;
Pred. NO. 4.8e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 426
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                                                                                                                                                                                                  Bach, M.K., ed.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Gene: GDB: IGHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 382-426 <HEL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cenerics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEBS Lett.
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As Experimental nource: psychem protein M. Dephyshire, R.B.; Viney, J.; Bell, L.O., Brock, J.M.; Molgand, B.W.; Monghton, M. Dephyshire, R.B.; Viney, J.; Bell, L.O., ATTLER: Cloning and Sequence determination of the gene for the human immunoglobulin Assertence number: A3993; WHID:8106234
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A:Molecule type: mRNA A:Residues: 1-40:68-114:427-428 <KEN>

A:Cross-references: GB:L00022; NID:g185035 224, 306-310, 1987

A:Reference number: S02438; MUID:88083554 A:Accession: S02438 Wille: Purification and characterization of a recombinant human IgE FC-epsilon frag nucleic acid sequence not shown

A:Molecule type: mRNA A:Residues: 98-352 <IKE> R:Zhang, K.; Max, E.E.; Cheah, T. Biol. Chem. 269, 456-462, 1 A:Title: Complex alternative RNA splicing of epsilon-immunoglobulin transcripts produ H.K.; Saxon, A.

A:Reference number: A53116; MUID:94103254 A;Accession: A53116 A:Status: preliminary

A.EXperimental source: myeloma U266-derived ceil line AF-10 A.NOte: Sequence extracted from NCBI backbone (NCBIN:141701, NCBIF:141702) Eur. J. Immunol. 23, 159-167, 1993 A; Molecule type: mRNA A; Residues: 320-428 <2H2>

A.Title: Characterization of four novel epsilon chain mRNA and a comparative analysis A.Reference number: A4536; NUID:93122085
A):Accession: c46536 Status: preliminary; not compared with conceptual translation

A:Cross:references: GB:S55273; NID:9263166; PIDN:AAB24857.1; PID:9263167 A:Experimental source: B cell mysions U-266

A; Status: preliminary; not compared with conceptual translation A; Note: sequence extracted from NCBI backbone (NCBIP:125297)

A: Molecula type: mawi A: Moleculaes: 382-391 (AE2) A: Coose-references: 08:55276; MID:9263168; PIDN:AMB24858.1, PID:9263169 A: Experimental source: 8 coll mysloma 0-266

A; Status: preliminary; not compared with conceptual translation A:Note: sequence extracted from NCBI backbone (NCBIP:125299)

A: Molecule type: DMA

A:Experimental source: B cell myeloma U-266 A:Note: sequence extracted from NCBI backbone (NCBIP:123483)

Albitrons: 1/1, 10/1, 211/1; 319/1
Ciceplex: An imminoglobulin heterotetramer subunit consists of two identical light A:Map position: 14932.33-14932 A;Cross-references: GDB:119335; OMIM:147180

hain disulfide bonds. In some cases, such as Tap and Tap, the submitte associate into Caseperically; Lemostre Splicings deplicate; deplicates of the Caseperically immatte Splicings deplicates; deplicates of the Caseperical Splicings deplicates; depositions of the Caseperical Splicings deplication; depositions of the Caseperical Splicings of the Caseperical Splic

F:128-195/Domain: immunoglobulin homology <IM2>
F:232-301/Domain: immunoglobulin homology <IM3>

F.138-01/7/Comain. immunojatokulin homology CIMA:
F.14/Chisuffee bonds interchain (Too light chain) feature predicted
F.11-105, 29-56, 135-139, 1279-199, 136-107/Chisuffee bonds: isstitus predicted
F.11-105, 29-56, 135-139, 1279-199, 136-107/Chisuffee bonds: isstitus predicted
F.11-10 F;121,209/Disulfide bonds: interchain (to heavy chain) #status predicted

Best Local Similarity 62.5%; Score 86; DB 1; Pred. No. 0.00013 Length 428;

Matches

Conservative

Mismatches

6; Indels

0

Gaps

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R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;cross-references: EMB1:227397; NID:9416337; PIDN:CAA81788.1; PID:9940782
C;Superfamily: immunoglobulin C region; immunoglobulin homology
F;333-421/Domain: immunoglobulin homology <IMN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Residues: 1-548 < KIP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Reference number: S38864
A;Accession: S38864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R.Kipp, B., Becker, W., Schlask, M.
submitted to the RML Data Library, Movember 1993
A;Description: Combination of a defined specificity and desired isotype by cloning of an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ig epsilon chain C region - mouse (fragment)
C:Species: Mas musculus (house mouse)
C:Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 24-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F.186-754/Comain: immunoglobulin homology <1M3-
F.190-754/Comain: immunoglobulin homology <1M3-
F.190-51,0ca.in: immunoglobulin homology <1M4-
F.10.51,62,133,205,228,332,382/Binding site: carbohydrate (Asn) (covalent) #status predi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C:Keywords: duplication: glycoprotein; heterotetramer; immunoglobulin F:1-44/Domain: immunoglobulin homology (fragment) <IMl>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Superfamily: immunoglobulin C region; immunoglobulin homology
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C;Complex: An immunoglobulin heterotetramer subunit consists of two identical light (May
hain disulfide bonds: In some cases, such as 1gA and 1gM, the subunits associate into 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R.LiAu, P.T., Albrandt, K., Succilife, J.G.; Katz, D.H.
Proc. Natl. Acad Sci. U. S. A. 79, 7852-7865, 1982
A.Title: Closing and muclectide sequence of mouse immunogiobulin epsilon chain cDNA.
A.Reference number: A0214; NUID:33117715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Accession: A02144
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C:Date: 13-Jun-1983 #sequence_revision 13-Jun-1983 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C: Accession: S38864
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRN/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: A02144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ig epsilon chain C region (version 1) - mouse (fragment)
IgE chain C3 region - mouse (fragment)
                                                                                                                                                                              419 CIVDHPDFPKPIVRSITKTPGQRS 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         252 CIVDHPDFPKPIVRSITKTPGQRS 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      299 CRVTHPHLPRALMRSTTKTSGPRA 322
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                                                                                                                                                                                                                                                    1 CRVTHPHLPKDIVRSIAKAPGKRA 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                   58.8%; Score 80; DB 4; 562.5%; Pred. No. 0.0012; 7: Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        58.8%; Score 80; DB 1;
62.5%; Pred. No. 0.00088;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                         DB 2; Length 548;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 388;
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                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                          0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A.Title: Mouse immunoglobulin allotypes: Multiple differences between the nucleic aci
A;Reference number: I54443; MUID:88152907
A;Accession: 168726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Mus musculus (house mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 21-Jan-2000
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                                                                                                                                                                                                          A:Status: preliminary; nucleic acid sequence not shown
A:Molecule type: mRM,
A;Residues: 1-684 <GRE>
                                                                                                                                                                                                                                                                                                                   A.Title: A new antigen receptor gene family that undergoes rearrangement and extensiv
A:Reference number: $60266; MUD:95183140
A:Accession: $60266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     novel antigen receptor precursor - nurse shark
C;Species: Glaplymostoma cirratum (nurse shark)
C;Date: 10-Apr-1996 *sequence_revision 19-Apr-1996 *text_change 21-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-107 < RES>
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Immunogenetics 27, 288-292, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: I68726
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                                                                                                                                                                       A;Cross-references: EMBL:U18701; NID:g699442; PIDN:AAB48195.1; PID:g699443
                                                                                                                                                                                                                                                                                                                                                                                                                            R;Greenberg, A.S.; Avila, D.; Hughes, M.; Hughes, A.; McKinney, E.C.; Flajnik, M.F. Nature 374, 168-173, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Accession: Sb02bb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                     Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88 CIVDHPDFPKPIVRSITKTP 107
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                                  Local Similarity
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      11;
      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49.3%; Score 67; DB 2; Length 107; 65.0%; Pred. No. 0.018;
                                  43.4%; Score 59; DB 2; Length 684.
50.0%; Pred. No. 1.7;
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Mismatches

7; Indels

0;

Gaps

C; Species: Mus musculus (house mouse)

4; Mismatches

7; Indels

Q,

Gaps

c,

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A; Title: Mouse immunoglobulin allotypes: Multiple differences between the nucleic aci
A; Reference number: I54443; MUID:88152907
                                                                                           R;Shinkai, Y.; Nakauchi, H.; Honjo, T.; Okumura, K. Immunogenetics 27, 288-292, 1988
                                                                                                                                                                                      C;Date: 02-Aug-1996 *sequence_revision 02-Aug-1996 *text_change 21-Jan-2000
C;Accession: I68730
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0; Mismatches

7; Indels Length 107;

0; Gaps

0

Score 67; DB 2; Pred. No. 0.018;

1 CRVTHPHLPKDIVRSIAKAPGK 22

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ANMADenth type: MBNA
ANMADENTH type: MBNA
ANGEDERS Teferences: DBBCLN
ANGEDERS TEFERENCES: BCAPO-Zednider, M. Taylor, D. A.; Leinwand, L. A.
DBCL BDL: ZiO. 655-671, 1888 and beck, cardiac myosin heavy chain sequences: Comparisor
ANGEDERS TEFERENCES TEFERENCES
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**S.Outalins: myosin Affrese (25. 16.123)

**S.Outalins: myosin Affrese (25. 16.123)

**C.Opensis: Return morregions (Gormay 201) no. 1931 text_change 19-Jan-2001

**C.Abconsiston: S.Offes: S.Offes: A.Offes: Myosin 15. 18.000

**C.Abconsiston: S.Offes: S.Offes: Myosin 15. 18.000

**ROMANIN: E.M.: Ginnols M.M.: Leinwend i.A.

**W.C.Lich: Complete notioecide Sequence of full length cDMA for rat alpha cardiac myosin

**J. Fisher Complete notioecide Sequence of full length cDMA for rat alpha cardiac myosin

**J. Fisher Complete notioecide Sequence of full length cDMA for rat alpha cardiac myosin

**J. Fisher Complete notioecide Sequence of full length cDMA for rat alpha cardiac myosin
A; Molecule type: protein
A; Molecule type: protein
A; Residues: \(\frac{1}{1}\)-12, 'AP', 14-45, 'A', 47-50, 'AP', 53-81, 'E', 83-86, 'Q', 88-109, 111-133, 'H', 135-16
                                                                                                       R.MADAVI, V., Chambers, A.P.; Nada-Sinard, B.
Proc. Natl. Acad. Sci. U.S.A. Bl., 2626-2590, 1984
A.Title: Cardiac alpha- and beta-myosin heavy chain genes are organized in tendem
A.Mategone number; A00971; MID:84194059
                                                                                  A; Accession: A20971
                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-1938 <MC2>
                                                                                                                                                                                                                                                                                                                                   A; Status:
                                                                                                                                                                                                                                                                                                                                                               A; Accession: S07535; MUID:90133919
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      myosin alpha heavy chain, cardiac muscle [simllarity] - rat
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C:Specles: Kenopus lawis (African clawed frog)
C:Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C:Keywords: glycoproteln; heterotetramer; immu
F:26-109/Domain: lmmunoglobulin homology <IMM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; WOI cule type: mRNA
A; Residues: 'LC', 3-308, 'H', 310-549 <LIT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       submitted to the EMBL Data Library, April 1989
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A; Residues: 1-549 < AME>
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Nucleic Acids Res. 17, 5388, 1989
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52.2%;
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A; Residues: 1-1939 <MAT>
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F: 548-585/Region:
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R:Mahdavi, V.; Periasamy, M.; Nadal-Ginard, B. Nature 297, 659-664, 1982 A; Reference number: A02988; MUID: 82220036 A; Title: Molecular characterization of two myosin heavy chain genes expressed in the

Bur. Heart J. 5, 181-191, 1984 A-Title: Cardiac myosin heary chain isozymic transitions during development and under A:Reference number: 153305; MUID:85179510

A; Status: translated from GB/EMBL/DDBJ

A; Molecule type: mRNA A; Residues: 1872-1933, 'I', 1935-1938 <RES>

A.Cross-references: 08:M3697, MID:g00596; FIDN:AAA41658.1; FID:g005967 C:Superfemily: myosin heavy chain; myosin motor domain homology: C:Keywords: actin binding; ATP; cardiac muscle; colled coll; heart; hydrolase; methyl

F:87-767/Domain: myosin motor domain homology <MMOT> F:177-184/Region: nucleotide binding motif A (P-loop)

F)548-585/Region: actin binding *status predicted F)656-678/Region: actin binding *status predicted coiled coil *Status predicted <COI>

F:189/Modified site: N.H.R6-rimethyllysine (Lys) *status predicted F:181/Minding site: AFP (Lys) *status predicted F:696.706/Active site: Cys *status predicted F;1281-1938/Region: light meromyosin

Conservative 39.7%; Score 54; 50.0%; Pred. No. Mismatches DB 1; Length 1938; 7; Sdps

2 RVTHPHLPKDIVRSIAKAPG 21

myocia aliyah heay chin, cardias musia * haman McCantalis: myocia Mrases (22 3.6.1.32) CaSpelle: New saptions (mai) grisica 1-bec-1931 rest_change 18.3.m-2001 CaAcession: McTO2 McTO2 McTO2 S0800; NS202 NS305 MCTO3 MCTO2 MCTO2

A;Cross-references: DDBJ:D00943; NID:g219523; PIDN:BAA00791.1; PID:g219524

R;Epp, T.A.; Dixon, I.M.C.; Wang, H.Y.; Sole, M.J.; Liew, C.C. Genomics 18, 505-509, 1993

A:Tille: Structural Organization of the human cardiac alpha-myosin heavy chain gene (A:Paference number: A49354; мUD:94140346 A:Accession: A49354 A:Status: nucleic acid sequence not shown; translation not shown

A; Molecule type: DNA A; Mesidues: 1-87,'Q',89-573,'Q',575-607,'A',609-743,'T',745-789,'M',791-1013,'Y',1015

A;Cross-references: Gm:Z0655; MID:G270701; FIDM:GA79575.1; FID:g297024
R;Brand, M.J.; Dabhade, M.; Youndb, M.; Barton, P.J.S.
BiOchiem, Biophys. Res. Commun. 179, 1255-1258, 1991
A;Tills: Detarmination of the 5° exon structure of the human cardiac alpha-myosin hom

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myosin heavy chain alpha, cardiac muscle (similarity) - golden hamster
C:Species: Mesocricetus untatus (golden hamster)
C:Date: 07-01-1956 Sequence_revision 02-01-1996 #text_change 02-reb-2001
C:Accession: 148175, A2338
                R. Wang, R.; Sole, M.J. Cuberman, E.; Liev, C.C.
B. Wang, R.; Sole, M.J. Cuberman, E.; Liev, C.C.
A;Title: Characterization and nucleotide sequence of the cardiac alpha-myosin heavy chair
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F:129/Modified site: 86,86,86-trimethyllysine (Lys) #status predicted
F:149/Modified site: 47E (Lys) Status predicted
F:697,707/Active site: Cys #status predicted
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C:Superfamily: myosin heavy obtain myosin motor domain C:Superfamily: myosin motor domain collect Meywords continue mustable obtained to the motor of the service of the motor of the service of the motor of the service of the servic
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RYEMBUCHI-TAKIHATA, K., SAGA, M.J.; Likew, J., Ting, D.; Likew, C.C.
PTOC. Natl. Acad. Sci. U.S.A. 86, 7416-7417, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A:Cross-réderences: Dent.X56181, MID-98818; FIDN:CAA39642.1; PID:928818 R:Thamachi-Teklhara, K. Seale, M.J. Libes, V. Broc., Natl. Leav. C.C. Proc., Natl. Acad. Sci. U.S.A. 86, 3904-3508, 1989 A. F. Liev. C.C. A:Title: Characteration of human cardiac myosin heavy chain genes.
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A; Residues: 1-32 < BRA>
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ATP; cardiac muscle; coiled coil; heart; hydrolase; methylat
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A/Status: preliminary; translated from GB/EMBL/DDBJ A/Molecule type: DNA
                                                                                                                                                                                   A: Accession: T35963
                                                                                                                                                                                                                                                                                     R.Seeger, K.J.; Harris, D.; Bentley, S.D.; Parkhill, J.; Barrell, B.G.; Rejandream, submitted to the EMBL Data Library, January 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CaAccession: T35963
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C.Specide: Streptomyces coelicolor
C.Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 03-Dec-1999
                                                               hypothetical protein SC9C7.12 - Streptomyces coelicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Riviermon, N.C.; Feldbyum, T.Y.; Bulben, I.T.; Welkon, K.E.; Eisen, J.; Beldelberg, B.; Laub, M.T.; Dawy, R.T.; Docano, R.J.; Durkin, A.S.; Gelfon, M.L.; Bait, D.H.; Ob. J.; Ernolawa, M.; Mitte, O.; Saltbour, S.J.; Sheptro, b.; Venter, J.C.; Fraser, C. Proc. Metl., Aada (Sec. U. S. A. 98, 1434-414), 200.
A Tille: Complete Genome Sequence of Caulobacter (compettum).
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A; Residues: 1-273 <STO>
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C:Keywords: ATP; cardiac muscle; heart; nucleotide binding; P-loop
F:887-768/Domain: myosin motor domain homology (AMPOT)
F:189-185/Region: nucleotide-binding motif A (P-loop)
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A.Residues: 1630-1843, /r',1845-1878, 'T',1880-1927, 'W',1929-1932,1934-1939 cLIE>
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A; Residues: 1-1939 < RES>
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A:Accession: I48175
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Accession: B87319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ross-references: GB:AE005673; NID:gl3421758; PIDN:AAK22550.1; GSPDB:GN00148
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                                                                                                                                                                                                                     224 SRPHAPRNRDIIRSTLGRDKPLCARANGRRAP 255
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40.6%;
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Pred. No. 6.8;
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                                                                                                                                                                                                                                                                                                                                                                                            Length 273;
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RESULT 15
B46529
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NEALERTHE Amea: 19 pamen bhin (7.85) - duck
Casperiag: Amea: play Pythychole (domestri Al-Hor-1594 *text_change 21-7ul-2000
Casperiag: Amea: play Pythychole (domestri Al-Hor-1594 *text_change 21-7ul-2000
CARCEGERIOR: B4655; 36075 - duck
Aleaceroom unabor: A4653; MUID:39017865
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A: Cross-relevendes: DWELALAUSSIG1; PIDN:CDA22724.1; GSFDB:GN00070; SCODB:SCS97.12
A) Experimental Mource: SCLVAIA A3(2)
C:Gnomic SCODDB:SCS97.12
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A; Molecule type: mRNA
A; Residues: 1-572 < MAG>
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Search completed: July 15, 2002, 12:46:39 Job time: 80 sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 37.5%; Score 51; DB 2; Length 572; Best Local Similarity 50.0%; Pred. No. 20; Matches 11; Conservative 2; Mismatches 9; Indel9
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                                                                                                                                                                                                                                                                                                                                 442 CTVQHEDLPVPLGKSIAKHAGK 463
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Immunoglobulin domain; Immunoglobulin C region.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus
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SMART; SM00407; IGcl; 1.
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"Characterization and molecular cloning of the mRNA for the heavy 
"characterization of rat imminoglobulin E."; 
(egsilon) chain of rat imminoglobulin E."; 
Proc. Natl. Acad. Sci. U.S.A. 79:1264-1268(1982).
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MEDLINE-82174576; PubMed-6803238;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         construction, identification, and DNA sequence. ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kindsvogel W.R., Reddy E.P., Moore J.M., Faust C.H. Jr.; "A cloned cDNA, probe for rat immunoglobulin epsilon heavy Chain:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-83182019; PubMed=6820340;
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Submitted (JUL-1993) to the PDB data bank
         Pading E.A., Davies D.R.,
"A model of the F-C- of immunoglobulin E."
                                                                                                                       SEQUENCE OF 1-40: 68-114 AND 427-428 FROM N.A. MEDLINE-83065234; PubMed-6815656;
                                                                                                                                                  [III] Bach M.K. (edg.);
[III] Bach M.K. (edg.);
Marcel Dekker, New York (1978).
                                     3D-STRUCTURE MODELING
                                                                   "Cloning and sequence determination of the gene for the human immunoglobulin epsilon chain expressed in a myeloma cell line
                                                                                                             Kenten J.H.
                                                                                                                                                                                                                                       Used S., Nakai S., Nishida Y., Hisajima H., "Long terminal repeat-like elements flank a epailon pseudogene that lacks introns."; EMBO J. 1:1539-1544(1982).
                                                                                                                                                                                                                                                                                                                                     "The sequence of a human immunoglobulin epsilon heavy chain constant region gene, and evidence for three non-allelic genes.";
                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-84236029; PubMed-6234164;
Flanagan J.G., Rabbitts T.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kikuchi M., Sugino Y., Mishida i., Munju ...
*Molecular cloning and nucleotide sequencing of human immunoglobulin epsilon chain cDNA.",
epsilon chain cDNA.",
                                                                                                                                                                                                                                                                                        MEDLINE-84207910; PubMed-6327276;
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                                                                                                                                                                                                                                                                                                                                                                                                                       Max E.E., Battey J., Ney R., Kirsch I.R., Leder P.; Duplication and deletion in the human immunoglobulin epsilon genes.*;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE~83168897; PubMed=6300763;
Seno M., Kurokawa T., Ono Y., Ond
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                                                           79:6661-6665(1982).
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01-FEB-1996 (Rel. 33, Last seq
15-JUL-1999 (Rel. 38, Last ann
                   КМВО J. 1:1117-1123(1982)
                                                                                                                              Mus musculus (Mouse)
Eukaryota; Metazoa;
                                                                                                                                                                                                           P06336; P01856;
                                                                                                                                                                                                                     EPC_MOUSE
                                                                               SEQUENCE FROM N.A.
                                                                                                        NCBI_TaxID=10090
                                                                                                                                                       Ig epsilon chain C region.
                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3D-structure.
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SMART; SM00407; IG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; A22771; A22771.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Interpro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro;
                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A23195; A23195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : IPR003597;
                                                                                                                                                                                                                                                                                                                                                                                                 428 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IPR003006; Ig_MHC
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                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                     STANDARD;
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                                                                                                                                                                 38, Last annotation update
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This SHSS-POOT entry is copyright, It is produced through a collaboration between the suis institute of Educationantics and the Dediconstation of the constitution of
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L00022; AAB59424.1; ALT_INIT.

PROSITE; PS00290; IG_MHC; 3. Immunoglobulin domain; Immunoglobulin C region; Glycoprotein;

INTERCHAIN (WITH A LIGHT CHAIN) INTERCHAIN (WITH A HEAVY CHAIN)

INTERCHAIN (WITH A HEAVY CHAIN)

N-LINKED N-LINKED N-LINKED N-LINKED GLCNAC. (GLCNAC. (GLCNAC. (GLCNAC.

47019 MW; /FTIG=VAR_003885. : 25C4CA072AA558A0 CRC64; W -> L (IN REF.) POLYMORPHISM IN REF. 2. POSSIBLY DUE TO

62.5%; 63.2%; Score 86; DB 1; Pred. No. 4.3e-0 Mismatches 4.3e-05 Length 428; Indels 0, Gaps

0

PRT; 421 AA

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus Chordata; Craniata; Vertebrata; Euteleostomi;

MEDIANE-8425692; PubMed-6529728; Ishida N., Ueda S., Hayashida H., Miyata T., Honjo T.; The nucleotide sequence of the mouse immunogiobulin epsilon gene comparison with the human epsilon gene sequence.*;

REVISIONS

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RESULT
MYH6_R
                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Cloning and nucleotide sequence of mouse immunoglobulin epsilon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=83117774; PubMed=6818553;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; Free SMART; SM00410: IG_like, ---
SMART; SM00407: IGCl; 2.
SMART; SM00407: IG_MHC; 3.
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InterPro; IPR003597;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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                                              Myosin heavy chain, cardiac muscle alpha isoform (MyHC-alpha).
                                                                      01-0CT-1989 (Rel. 12, Last sequence update)
16-0CT-2001 (Rel. 40, Last annotation update
                                                                                                                     P02563; Q63351;
21-JUL-1986 (Rel. 01, Created)
                                                                                                                                                                    MYH6_RAT
                                                                                                                                                                                                                                                                                    285 CIVDHPDPPKPIVRSITKTPGQRS 308
Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
hes 15; Conserv
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                                                                                                                                                                         STANDARD;
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McHally E.M., Kraft R., Bravo-Zehhder M., Taylor D., Leinwand L.A.;
Fgull-lemeth rat alpha and beta cordiac myosis heavy chain sequences.
Comperisons suggest a molecular basis for functional differences.';
J. Mol. Biol. 210:665-671(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic Acids Res. 17:7527-7528(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          *Complete nucleotide sequence of full length cDNA for rat alpha cardiac myosin heavy chain."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kraft R., Bravo-Zehnder M., Taylor D., Leinwand L.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-90016822; PubMed-2798111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10116;
MEDLINE-82220036; PubMed=7045682;
                                                                                                                                         "Cardiac alpha- and beta-myosin heavy chain genes are organized in
                                                                                                                                                                                                MEDLINE-84194059; PubMed-6585819;
                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=90133919; PubMed=2614840;
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                                 SEQUENCE OF 1512-1938 FROM N.A.
                                                                                                                                                                                                                                 EQUENCE OF 1-167 FROM N.A.
                                                                                        Natl. Acad. Sci. U.S.A. 81:2626-2630(1984).
                                                                                                                                                                          Chambers A.P., Nadal-Ginard B.;
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Mahdavi V., Periasamy N., Nadal-Ginard B., Woleenlar characterization of two myosin heavy chain genes expressed in the solut least. Nature 297:659-664(1982)

STRAIN-WISTAR; TISSUE-SEQUENCE OF 1872-1938 FROM N.A.

Mahdavi V., Lompre A.M., Chambers A.P., Nadal-Ginard B.; "Cardiac myosin heavy chain isozymic transitions during development REDLINE-85179510; PubMed-6241892; pathological conditions are regulated at the level of mrNP

MISCELLANBOUS: THE CARDIAC ALPHA ISOFORM IS A 'FAST' ATPASE MYOSIN, WHILE THE BETA ISOFORM IS A 'SLOW' ATPASE. SUBFRAGMENT (S2).

488888888888888888888888888888888 SIMILARITY: CONTAINS 1 MYOSIN-LIKE GLOBULAR HEAD DOMAIN. SIMILARITY: CONTAINS 1 1Q DOMAIN.

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X15938; CAA34064.1; -.

DRR EMBL: K01464; AAA41648.1; EMBL: J00751; AAA41653.1; EMBL: M32697; AAA41658.1; PIR; A02988; A02988 s06005; S06005

Bukaryota: Métazoa; Chordata; Craniata; Vertebrata; EuteleoStomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus

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MYH6_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                      Matuoka R., Belsel K.W., Furutani M., Aral S., Takao A.; 
"Complete sequence of human cardiac alpha-myosin heavy chain gene and 
maino acid Comperison to other myosina based on structural and 
functional differences.",
                                                                                                                                                                            01-ZAM-1990 (Rel. 13. Created)
15-JUL-1998 (Rel. 16. Last Sequence update)
16-OCT-2001 (Rel. 40. Last annotation update)
Myssin heavy chain, cardiac muscle alpha isoform (MyHC-alpha).
SEQUENCE PROM N.A.
                    Am. U. Med. Genet. 41:537-547(1991)
                                                                                MEDLINE-92133665; PubMed-1776652
                                                                                                                          NCBI_TaxID-9606
                                                                                                                                                 Homo sapiens (Human).
Eukaryota; Metazoa; (
                                                                                                                                                                                                                                      P13533; Q13943; Q14906; Q14907;
                                                                                                 SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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ProDom; PD000355; myosin_head; 1
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Pfam; PF02736; Myosin_N; 1.
Pfam; PF01576; Myosin_tail; 1.
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                                                                                                                             yota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
lia; Eutheria; Primates; Catarrhini; Hominidae; Homo,
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1575
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0612; 1Q; 2.
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IPRO04009; Myosin_N.
IPRO02928; Myosin_tail
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F >> FF (IN REF. 4).
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                                                                                  InterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                          SUBFRAGMENT (S2)
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BEP T.A., Dixon I.M., Wang H.Y., Sole M.J., Liev C.-C.; "Structural organization of the human cardiac alpha-myosin heavy chain gene (MYHS)." MEDLINE-94140346; Pubmed-8307559;

Genomics 18:505-509(1993). SEQUENCE OF 1-177 AND 1551-1939 FROM N.A.

Yamauchi-Takihara K., Sole M.J., Liew J., Ing D., Liew C.-C.;
"Characterization of human cardiac myosin heavy chain genes.";
Proc. Natl. Acad. Sci. U.S.A. 86:3504-3508(1989). MEDLINE-89264452; Pubmed-2726733;

Ydmauchi-Takihara K., Sole M.J., Liew J., Ing D., Liew C.-C. Proc. Natl. Acad. Sci. U.S.A. 86:7415-7417(1989).

MEDLINE-88299163; PubMed-2969919; SEQUENCE OF 1407-1939 FROM N. A.

Kurabayashi M., Tsuchimochi H., Komuro I., Takaku E., Kazaki Y., Tsuchular cloring and Chizacterization of himan cardiac alpha- and beta-form myosin heavy chial complementary DNA clones, Regulation of expression during development and pressure overload in human

Invest. 82:524-531(1988).

SUBBINIT: MUSCLE MYOSIN IS A HEXAMERIC PROTEIN THAT CONSISTS HEAVY CHAIN SUBBINITS (MHC), 2 ALKALI LIGHT CHAIN SUBBINITS (P

CHARACTERISTIC DRA AIGHA-BELTOLL COLLED COLLS
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MESCELANDOUS: THE CARDIAC ALPHA ISOTORM IS A "FAST" ATPASE MYOSIN, MHILE THE BETA ISOTORM IS A "SLOW" ATPASE.
SIMILARITY: COMPAINS I MYSSIN-LIKE (LOBULAR HEAD DOMAIN.
SIMILARITY: CONTAINS 1 TO DOMAIN.

This SHESPEOT entry is copyright, it is preduced through a collaboration between the suss institute of institute. There are no restrictions on its use by non-positio mestical institute. There are no restrictions on its modified and this sectional restriction as obtained by the own position of the collaboration of the colla

M25162; AAA60386.1; M25142; AAA60387.1; M21664; AAA36344.1; M25140; AAA60386.1; D00943; BAA00791.1; Z20656; CAA79675.1; A46762 AAA60387.1; JOINED JOINED

InterPro: IPR001609, A28908: A28908. PU8/99; 1MMD IPR002928; 1PR004009; IPR000048; myosin_head Myosin_tail Myosin_N

PRETAR REPORT OF STREET

Pfam; PF00063; myosin_head; 1. Pfam; PF02736; Myosin_N; 1. Pfam; PF01576; Myosin_tail; 1. PRINTS; PRO0193; MYOSINHEAVY PD000355; myosin_head; 1

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"Only D. Sole M.J. Cukerman E., Liev v. v.,

"Only Charliantion and nuclectide sequence of the cardiac alpha-myosin
heavy Chain gene from Syrian haraser."

"An . Cell. Cardiol. &S:1155-1165(1934).
                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                    Myosin heavy chain, cardiac muscle alpha isoform (MyHC-alpha)
                                                                                                                                                                                                                                                                                                     01-JAN-1990 (Rel. 13, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
   SEQUENCE OF 1630-1939 FROM N.A.
                                                                                                        STRAIN=F1B; TISSUE=Liver;
MEDLINE=95115033; PubMed=7815459;
                                                                                                                                                                              NCBI_TaxID=10036
                                                                                                                                                                                                                                                    Mesocricetus auratus (Golden hamster)
                                                                                                                                                                                                                                                                                                                                                             P13539; Q60562
                                                                                                                                                                                                                                                                                                                                                                               MYH6_MESAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NIVWOOD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Calmodulin-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATP-binding; Methylation; Alkylation; Multigene family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Myosin; Muscle protein; Coiled coil; Thick filament; Actin-binding;
                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      665 RTTHPHFVRCIIPNERKAPG 684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SM00242; MYSC; 1.
E; PS50096; IQ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1939 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          39.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                223689 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KL -> NY (IN REF. 2

C -> DR (IN REF. 2

C -> 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 54; DB 1;
Pred. No. 8.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALKYLATION (SH-1) (POTENTIAL)
ALKYLATION (SH-2) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IQ.
COILED COIL (POTENTIAL)
ATP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METHYLATION (TRI-) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MYOSIN HEAD-LIKE
                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                               PRT; 1939 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismarches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ECB87E7CE8768B6F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (IN REF. 5)
(IN REF. 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1939;
                                                                                                                                                                                                                 Cricetinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Calmodulin-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; L15351; AAB59701.1; -
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-!- SIMILARITY: CONTAINS 1 MYOSIN-LIKE GLOBULAR HEAD DOMAIN.
-!- SIMILARITY: CONTAINS 1 IQ DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HEAVY CHAIN SUBBUTES (MONC). A DAMAGH LIGHT CHAIN SUBBUTES (MLC).

AND J ROUTLANDER THANK FILMENTS (MCC).

AND J ROUTLANDER THANK FILMENTS OF THE SPOTENTIAL SHOULD CHAIN SHOU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           myosin heavy chain CDNA clone and its developmental expression in the Syrian hamster.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Construction and Characterization of the alpha form of a cardiac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=86205859; PubMed=3458174;
                                                                                                                                                                                                           MISCELLANEOUS: THE CARDIAC ALPHA ISOFORM IS A 'FAST' ATPASE MYOSIN, WHILE THE BETA ISOFORM IS A 'SLOW' ATPASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEROMYOSIN (LAM) AND 1 HEAVY MEROMYOSIN (HAM). IT CAN LATER BE SPLIT FURTHER INTO 2 GLOBULAR SUBFRAGMENTS (S1) AND 1 ROD-SHAPED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MISCELLANEOUS: EACH MYOSIN HEAVY CHAIN CAN BE SPLIT INTO 1 LIGHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBUNIT: MUSCLE MYOSIN IS A HEXAMERIC PROTEIN THAT CONSISTS OF 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: MUSCLE
                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBFRAGMENT (S2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALKYLATED AND ARE REQUIRED FOR MYOSIN ATPASE ACTIVITY (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ., Jandreski M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Acad. Sci. U.S.A. 83:3175-3179(1986).
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Myosin: Muscle protein; Coiled coil; Thick filament; Actin-binding, AFP-binding; Methylation; Alkylation; Multigene family;
                               PROSITE; PS50096; IQ: 1
                                                  SMART; SM00242; MYSC;
                                                                            ProDom; PD000355; myosin_head; 1.
                                                                                                                                  Pfam;
                                                                                                                                                     Pfam;
                                                                                                                                                                                 InterPro;
                                                                                                                                                                                                 InterPro;
                                                                                                                                                                                                                 InterPro;
                                                                                                                                                                                                                                 InterPro;
                                                                                                                                                                                                                                                 HSSP; P08799;
                                                                                                                  PF01576;
                                                                                                                                  PF02736; Myosin_N; 1.
                                                                                                                                                              PF00612;
                                                                                                                                                                                                                                                             M12995; AAA37081.1; -
                                                                  SM00015, IQ;
                                                                                                                                                                                 IPR001609
                                                                                                                                                                                                 IPR004009;
                                                                                                                                                                                                                                 IPR000048;
                                                                                               Myosin_tail; 1.
3: MYOSINHEAVY.
                                                                                                                                              myosin_head; 1.
                                                                                                                                                                              myosin_head
                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                              Myosin_tail
                                                                                                                                                                                                           Myosin_N
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QKM -> KR (IN REF. 2).	1935	1933	NPLICT
D -> N (IN REF. 2).	1928	1928	MPLICT
E -> V (IN REF. 2).	1907	1907	NPLICT
E -> Q (IN REF. 2).	1885	1885	MPLICT
A -> T (IN REF. 2).	1879	1879	NPLICT
K -> R (IN REF. 2).	1844	1844	MFLICT
V -> G (IN REF. 2).	1693	1693	MPLICT
EL -> DV (IN REF. 2).	1687	1686	MFLICT
H -> Q (IN REF. 2).	1651	1651	MPLICT
Q -> L (IN REF. 2).	1633	1633	NPLICT
ALKYLATION (SH-2) (POTENTIAL).	707	707	D_RES
ALKYLATION (SH-1) (POTENTIAL).	697	697	D_RES
METHYLATION (TRI-) (POTENTIAL).	129	129	D_RES
ACTIN-BINDING.	773	759	MAIN
ACTIN-BINDING.	679	657	MAIN
ATP (POTENTIAL).	185	178	BIND
POLY-ALA.	1443	1439	NIVM
COLLED COIL (POTENTIAL).	1939	842	MAIN
IQ.	812	783	MAIN
MYOSIN HEAD-LIKE.	782	,	MAIN

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                                                                                                                                        between the Sutes Justitude of Bolandomatics and the SMBI contention the Burcopean Bolandomatical mattitude. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial multitude requires a librame agreement (See http://www.lab-sib.dh/annomnow/or.sepid am email to librames#abs7b.dh).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND 2 REGULATORY LIGHT CHAIN SUBUNITS (M.C.-2).

AND 2 REGULATORY LIGHT CHAIN SUBUNITS (M.C.-2).

TOWARN: THE RODLIKE TAIL SEQUENCE IS HIGHLY REPETITIVE, SHOWING

CYCLES OF A 23-RESIDURE REPEAT NATIBEN COMPOSED OF 4 HEPPARESTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Quinn-Laquer B.K., Kennedy J.E., Wei S.J., Beisel K.W.: 
"Characterization of the alieitc differences in the mouse cardiac 
alpha-myosin bawy chain coding sequence."; 
Genomics 13:176-188(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-BALB/C, A/J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WY16_W0USE STANDARD; PRT; 1938 AA. 002565, 094738; 064738; 15-JUL-1939 (Rel. 36, Created) 15-JUL-1939 (Rel. 36, Last sequence update) 16-CCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
EMBL; M76598; AAA37159.1; -.
EMBL; M76599; AAA37160.1; -.
EMBL; M76600; AAA37161.1; -.
EMBL; M76601; AAA37162.1; -.
EMBL; M62404; AAA37424.1; -.
                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chain genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gulick J., Subramaniam A., Neumann J., Robbins J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-91225025; PubMed-2026617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-67 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-92250040; PubMed-1577481.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID-10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  665 RTTHPHFVRCIIPNERKAPG 684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Isolation and characterization of the mouse cardiac myosin heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                        SUBFAAGERY (52).
MISCELLARSOUS : THE CARDIAC ALPHA ISOFORM IS A 'FAST' ATPASE MYCSIN, MILE THE BETT ISOFORM IS A 'SLOW' APPASE.
SIMILARITY: CONTAINS 1 MYCSIN-LIKE GLOBULAR HEAD DOMAIN.
SIMILARITY: CONTAINS 1 TO DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PM. THE OFFSELDE RESIDIES, IN THE SL DOMAIN ARE SELECTIVELY ALKYLATED AND ARE REQUIRED FOR WOCSEA APPRES ACTIVITY. LIGHT MECHANISCIS ACH MOCSEA REPAYE CHAIN CAN BE SELIT INTO 1. LIGHT MECHANISCIS ACH MOCSEA REPAYE CHAIN CAN BE SELIT INTO 1. LIGHT MECHANISCIS (LHM), IT CAN LATER BE SPLIT FURTHER, INTO 2 GLOBULAR SUBERMOMENTS (S1) AND 1 ROD-SHAPED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHARACTERISTIC FOR ALPHA-HELICAL COILED COILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: MUSCLE CONTRACTION.
SUBUNIT: MUSCLE MYOSIN IS A HEXAMERIC PROTEIN THAT CONSISTS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HEAVY CHAIN SUBUNITS (MHC), 2 ALKALI LIGHT CHAIN SUBUNITS (MLC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       heavy chain, cardiac muscle alpha isoform (MyHC-alpha).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chem. 266:9180-9185(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1939 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C57BL/6J, AND DBA/2J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  39.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 54; DB
Pred. No. 8.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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         R Q
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MYH3_HUMAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-1989 (Re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    665 KTTHPHFVRCIIPNERKAPG 684
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SEQUENCE
                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                  Calmodulin-binding;
                                                                                                                                                                                                                                                                                                                                                                                                        Myosin; Muscle protein; Coiled coil; Thick filament; Actin-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00242; MYSc;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00063; myosin_head; 1.
Pfam; PF02736; myosin_N; 1.
Pfam; PF01576; myosin_tail; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro: IPR001609; myosin_head
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro: IPR002928; Myosin_tail
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR000048; IQ.
InterPro; IPR004009; Myosin_N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:97255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SWISS-2DPAGE:
                                                                                               VARIANT
                                                                                                                  VARIANT
                                                                                                                                                                                                                                                                                                                                                                                         NTP-binding; Methylation; Alkylation; Multigene family;
Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PD000355; myosin_head; 1.
SM00015; IQ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                               PS50096; IQ; 1
                                                                            1938 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q02566; MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Myhca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MYOSINHEAVY
                                                                                                                                                                                                                                                                                                                                                      782 MYC
45.0%;
                                                                            223564 MW;
Score 51; DB
Pred. No. 24;
                                                                                                                                                                       CALMODULIN-BIRDING (BY SIMILARITY).
CALMODULIN-BIRDING (BY SIMILARITY).
METHYLATION (TRI-) (POTENTIAL).
ALKYLATION (SH-1) (POTENTIAL).
                                                                                                                                                        ALKYLATION (SH-2) (POTENTIAL)
                                                                                                                                                                                                                                                       ACTIN-BINDING
                                                                                                                                                                                                                                                                      ACTIN-BINDING
                                                                                                                                                                                                                                                                                                                COILED COIL (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                   MYOSIN HEAD-LIKE.
                                                                            EAD789ADA68818FB CRC64
                   DB 1; Length 1938
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MYH3_HUMAN STANDARD; PRT; 1940 AA

2 RVTHPHLPKDIVRSIAKAPG 21

Conservative

7; Indels ç Gaps

01-JUL-1989 (Rel. 11, Created)
01-JUL-1989 (Rel. 11, Last sequence update)
16-CC7-2001 (Rel. 40, Last annotation update)
Myosin heavy chain, fast skeletal muscle, embryonic (Muscle embryonic Myosin heavy chain, Iast ske myosin heavy chain) (SMHCE)

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Homo sapiens (Human)

SEQUENCE FROM N.A. MEDLINE-89263803; PubMed=2726495; NCBI_TaxID-9606; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo

Eller M.S., Stedman H.H., Sylvester J.E., Fertels S.H., Rubinstein N.A., Kelly A.M., Sarkar S.; *Nucleotide sequence of full length human embryonic myosin heavy Chain CDNA.*; Nucleic Acids Res. 17:3591-3592(1989).

Eller M. S. Stedman H. H., Sylvester J. E., Fertels S. H., Wu O.-L., Baychowdhury M. K., Rublistein N. A., Kally A. M., Sarkar S.: "Human embryonic myosin heavy Chain CDNA. Interspectes sequence MEDLINE-90033298; PubMed-2806546 SEQUENCE OF 774-1940 FROM N.A.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND MOT PERSONAL SHAREST PRIMARY CANADITY PROPERTY OF A BIANA EMPLOYER SHAREST PROPERTY CHEET STREET, 1988 (1988) AND ALC AND AND 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-89366648; PubMed-2771643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 856-1940 FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bur. J. Biochem. 189:55-65(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      myosin heavy chains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Identification of three developmentally controlled isoforms of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bober E., Buchberger-Seidl A., Braun T., Singh S., Goedde H.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-90235862; PubMed-1691980
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 856-1940 FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EBS Lett. 256:21-28(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 this SWISS-PROT entry is copyright. It is produced through a collaboration between the SMISH Institute of BioLint There and the golds contraction the SMISH Institute of BioLint There are no restrictions on its the European BioLintermatical most large as its content is in no way use by non-posit, institute in the capacia, disage by and for commercial modified and this suitones approximately (see http://www.iab-sib.ch/announce/or send as maint to lineaseigh-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; X13988; CAA32167.1;
EMBL; X13100; CAA31492.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR: S04090; S04090
                                                                                                                                                                                                                                                                                             PRINTS; PR00193; MYOSINHEAVY.
ProDom; PD000355; MYOSIN_head; 1.
SMART; SM00015; IQ; 1.
                                                                                                                                                                                                                                                                                                                                                                                               pfam; PF01576; Myosin_tail: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro: IPR004009: Myosin_N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MIM; 160720;
                                                                                                                                       Calmodulin-binding; ATP-binding; Methylation; Alkylation;
                                                                                                                                                                            Myosin; Muscle protein; Coiled coil; Thick filament; Actin-binding;
                                                                                                                                                                                                                                                                                      SMART; SM00015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro;
                                     DOMAIN
                                                                                                         Multigene family.
                                                                                                                                                                                                                                                       SMART; SM00242; MYSC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MUSCLE. THE BOULTE NAL ENGINEER IS USELY REPETITES, SHOWNER, COMMIN. THE BOULTE NAL ENGINEER CHARGE OF A 75 THE ALL PROPERTIES. COMMIN. THE SELECTIVELY PROPERTY OF A 75 THE ALL PROPERTY COLLEGE OF A 15 THE ALL PROPERTY COLLEGE OF A
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SIMILARITY: CONTAINS 1 IQ DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    X15696; CAA33731.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PF00063;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X51593; CAA35942.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IPR002928; Myosin_tail.
IPR001609; myosin_head.
782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DMMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                myosin_head; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Travis M., Blau H., Leinwand L.A.,
       COILED COIL (POTENTIAL)
                                                                                          MYOSIN HEAD-LIKE
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Matches
                 Query Match
          Best Local
                                                                                                                DOMAIN
                                                                                                                         DOMAIN
                                                                                                                                  NP_BIND
                                             SEQUENCE
                                                            CONFLICT
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                                                                                      MOD_RES
 1 Similarity
9; Conserv
                                                                1608
                                                                       130
130
130
133
1333
1333
                                              1940 AA;
   Conservative
                                                       1664
                                                                        186
678
772
130
696
706
1331
1331
             37.5%;
                                                224035 MW;
             pred. No.
                                                         KK -> QE (IN REF. 1 AN
SR -> RA (IN REF. 3).
RG -> QT (IN REF. 2).
                                                                                 ALKYLATION (SH-2)
A -> G (IN REF. 3
                                                                                                  METHYLATION (TRI-) (POTENTIAL).
ALKYLATION (SH-1).
                                                                                                                     ACTIN-BINDING
                                                                                                                              ACTIN-BINDING.
                                                                                                                                     ATP (POTENTIAL)
      Mismatches
                                                  43CA58C6A4BA1253 CRC64;
                        DB 1; Length 1940;
                                                                              1 AND 2).
          Indels
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            Gaps
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8777777777

2 RVTHPHLPKDIVRSIAKAPG 21

664 RTTHPHFVRCIIPNETKTPG 683

RAT 01-OCT-1989 (Rel. 12, Created) 01-OCT-1989 (Rel. 12, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation updat P1284 MYH3_RAT STANDARD; fast skeletal muscle, embryonic PRT; 1940 AA update)

SHAW WAR

2888 NCBI_TaxID-10116 Mammalia; Eutheria; Rodentia; Eukaryota; Metazoa; Rattus norvegicus (Rat) Chordata; Craniata; Vertebrata; Buteleostomi; Sciurognathi; Muridae; Murinae; Rattus

Myosin heavy chain.

222 MEDLINE-87060988; PubMed=3783701; SEQUENCE FROM N.A.

*Complete nucleotide and encoded amino acid sequence of a mammalian Strehler E.E., Strehler-Page M.-A., Perriard J.C., Periasamy M., heavy chain gene. Evidence against intron-dependent evolution

J. MOI. BIOI. 190:291-317(1986).

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- SUBMONT: MUSICE WISEN IS A DEALAR LIGHT CRAIM SUBMONTS (MC).

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1- DAMINE LIB MOCHES PAIL SCHENE IS HIGHT RESTITIVE. CYCLES OF A 28-RESIDUE REPEAT PATTERN COMPOSED OF 4 HEPTAPETTIDES.
CHARACTERISTIC FOR ALPHA-HELICAL COLLED COLLS.

- PM. TWO CYSTELME RESIDUES IN THE SI TOMAIN HE SELECTIVELY
LATENCED AND ARE RECOURSE FOR WYOSIK MYNNER PRILIT INTO I LIGHT
HISCHLARBONS EACH MYOSIK HEAVY CHAIN CAM BE SPLIT INTO I LIGHT
HISCHLARBONS EACH WYOSIK HEAVY CHAIN CAM BE SPLIT INTO I LIGHT
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HISCHLARBONS EACH WIND I HEAVY MOROWOOD HEAVY HEAVY TO AN AGEN REHISCHLARBON EACH WIND HEAVY H

SPLIT FURTHER INTO 2 GLOBULAR SUBFRAGMENTS (S1) AND 1 ROD-SHAPED

SIMILARITY: CONTAINS 1 MYOSIN-LIKE GLOBULAR HEAD DOMAIN.
SIMILARITY: CONTAINS 1 IQ DOMAIN.

눑쁉뫢욹륁읅륁믉캶캶캶캶캶캶캶캶캶캶캶캶캶캶캶 this SWISS-PROT entry is copyright. It is preduced through a collaboration between the SWISS Institute of Biblio Teation and the page outsition. The the European Bibliofranticultures are not restrictions on its the European Bibliofranticultures at long as if a content is in ow way use by non-profit translation and its content is in own way the second translation and its commencial modified and this sectionment is not removed, Usage by and for commencial modified and this sectionment is not removed. Usage by and for commencial entities requires a license agreement (see http://www.isb-sib.ch/amounce/or send an email to licensesisb-sib.ch).

EMBL; X04267; CAA27817.1; -

InterPro; IPR000048; IQ HSSP; P08799; PIR; A24922; A24922

DOMAIN

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OR REPORT OF THE SECOND SECOND
                                                      This swiss-pape entry is popyright. It is produced through a collaboration between the sates institutes and the DML outstation the European micriformatics establishments and the DML outstation use by non-profit institutions as to mease are no restrictions on its modified and this statement is not removed, as its condent is in no way entities required as license especiament (see http://www.lab-sib.ch/Announce/ceed as email to licensees/sib-sib.ch).
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                  EMBL; KO1316; AAB59394.1; ALT_INIT
                                                                                                                                                                                                                                                                                                            Plnk J.R.L., Beitery S.R., Ce Vites G.M., Milstein C.,
Thuan chamucojobsilin Subcisses, Partial amino acid sequence of the
constant region of a parma de Chain.*;
Blochem. J. 117:33-47(1970).
                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-70207560; PubMed-4192699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 1-30 AND 81-326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIARS-9337104; PubMed-6299662;
Ellison J.W., Buzbaum J.W., Hood L.E.;
*Nucleotide sequence of a human immunoglobulin C gamma 4 gene.*;
DwA 1:11-18(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
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Pfam. PPD2736 Myosin. Lall. 1.
PPLNTS PRODUCT MYOSIN. Lall. 1.
Probam. PPD0735 MYOSIN. REMAYY.
SMART SMO0215 TO 1.
SMART SMO0215 TO 1.
PROSTTE: P850095; ID; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID-9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
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InterPro; IPR002017; Spectrin.
InterPro; IPR001609; Myosin_head
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro: IPR002928; Myosin_N
InterPro: IPR002928; Myosin_ta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .ia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PF00063; myosin_head; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37.5%;
45.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223857
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 51;
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ALKYLATION (SH-2).
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Best Local
MYELOMA PROTEIN MOPC 173.
MEDLINE=74175517; PubMed=4831970;
                                                                                                                        Ollo R., Auffray C., Morchamps C., Rougeon F.;

"Comparison of mouse immunoglobulin gamma 2a and gamma 2b chain gen-
suggests that exons can be exchanged between genes in a multigenic
                                                                                                                                                                                                                                                                                                                                          Yamawaki-tatabina Y., Miyata T., Honjo T.;
The complete nucleotide Sequence of mouse immunoglobin gamma 2a gene
and evolution of heavy Chain genes; further evidence for intervening
sequence-mediated domain transfer.
                                                                                                                                                                                                                                    MEDLINE-81223894; PubMed-6787604;
                                                                                                                                                                                                                                                                                                                              Nucleic Acids Res. 9:1365-1381(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE-81198976; PubMed=6262729;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strory J.-L., Aiffray C., Rougeon F.;
Structure of the Consent and 3' untranslated regions of the marine
Balb/C games 2s heavy chain mesenger RNA.*;
Nucleic Acids Nos. 8:3143-3155(1980).
                                                                                                                                                                                                                                                                              EQUENCE FROM N.A.
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21-7UL-1986 (Rel. 01, Last sequence update)
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10 gamma-2A chain c region, A aliele.
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PROSITE; PS00290; IG_MHC; 2.
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                                                                        Nat1. Acad. Sci. U.S.A. 78:2442-2446(1981)
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Bourgois A., Fougereau M., Rocca-Serra J.;

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   immunoglobulin gamma chains.",
Proc. Natl. Acad. Sci. U.S.A. 79:2623-2627(1982).
Proc. Natl. Acad. Sci. U.S.A. 79:2623-2627(1982).
--- ALTERNATIVE PRODUCTS: CELL LINES PRODUCING IGG CONTAIN TWO MENA.
--- SPECIES FOR IG GAMMA CHAINS. THE MAJOR SPECIES ENCODES SECRETED
                                                                                           MEDLINE-82222190; PubMed=6283537;
Yamawaki-Kataoka Y., Nakai S., Miyata T., Honjo
                                                                                                                                                                                                                      Mus musculus (Mouse)
                                                                                                                                                                                                                                        Ig gamma-2A chain C region, membrane-bound form
                                                                                                                                                                                                                                                      21-JUL-1986 (Rel. 01, Created)
01-AUG-1991 (Rel. 19, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
                                                                                                                                                                                                                                                                                                                                   GCAM_MOUSE
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or send an email to license@isb-sib.ch).
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"Determination of the primary structure of a mouse gamma G2a
immunoglobulin. Identification of the disulfide bridges.";
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immunoglobulin mainto-eatie sequence of the Pc fragment. Implications 
for the evolution of immunoglobulin structure and function."; 
bur. J. Blochem. 43:423-435(1974).
                                                                                                                                                                 NCBI_Tax1D=10090;
                                                                                                                                                                               Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                 Kavinsky C.J., Umeda P.K., Levin J.E., Sinha A.M., Nigro J.M., Jakovcic S., Rabinowitz M.;
                                                                                                                                                          Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi:
                                                                                                                                                                                                                                 Myosin heavy chain, cardiac muscle beta isoform (MyHC-beta) (Beta
                                                                                                                                                                                                                                                  13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                       13-AUG-1987
13-AUG-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISGLFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
*Analysis of cloned mRNA sequences encoding subfragment 2 and part of
                                                        MEDLINE=84135762; PubMed=6321481;
                                                                                                                                            Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus
                                                                                                                                                                                                                                                                                                                         MYH7_RABIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISCLFIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transmembrane; Alternative splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00407; IGC1; 2.
PROSITE; PS00290; IG_MHC; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMART; SM00410; IG_11ke; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR003597; Ig_cl.
InterPro; IPR003600; Ig_like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MGD; MGI:96443; Igh-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute.
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                                                                      fissum-Heart ventricle.
                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                    204 CKVNNKDLPAPIERTISKPKGSVRAP 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunoglobulin domain; Immunoglobulin C region; Glycoprotein:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR003006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR: A02154; G2MSAM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CRVTHPHLPKDIVRSIAKAPGK-RAP 25
                                                                                                                                                                                                                   yosin) (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MISCELLANEOUS: THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAMAN CHAINS. A LESS ADUNDANT SPECIES APPEARS TO ENCODE MEMBRANE-BOUND CHAINS IN THAT IT CONTAINS AN ALTERNATIVE 3' ENO, ENCODED IN SEPRIANTE ENONS, THAT IS HOMOLOGOUS WITH THE MEMBRANE-BOUND SEGHENT OF MU CHAINS.
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                                                                                                                                                                                                                                                                                                                            STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 5.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 50.5; DB 1; Length 399;
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INTERCHAIN (WITH A HEAVY CHAIN)
INTERCHAIN (WITH A HEAVY CHAIN)
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DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF01576; Myosin_tail; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; A02987; MWRBCB
HSSP; P08799; 1MMN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; K02444; AAA31414.1; -
EMBL; K01696; AAA31417.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restrictions on its use by non-poid; institutions as long as its content is in no way mostified and this statement is not removed. (Base by and for commercial motities required a license agreement (See http://www.isb-stb.ch/announce/or send an easil to licensesisb-sib.ch)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                myosin heavy chains: expression in ventricles of normal, hypothyroid,
and thyrotoxic rabbits.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jakoveic S., Rabinowitz M.;
*Molecular cloning of mRNA sequences for cardiac alpha- and beta-form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      beta-ventricular myosin heavy chains.";
Proc. Nati. Acad. Sci. U.S.A. 81:3044-3048(1984)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Characterization of genomic ciones specifying rabbit aipha- and beta-ventricular myosin heavy chains.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Priedman D.J., Umeda P.K., Sinha A.M., Hsu H.J., Jokovcic S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-84221901; PubMed-6328491;
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SEQUENCE
                                                                                                                        MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Myosin; Muscle protein; Coiled coil; Thick filament; Actin-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS50096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00612; IQ; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR002928; Myosin_tail
InterPro; IPR001609; Myosin_head
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 600-720 FROM N.A.
MEDLINE-83299886; PubMed-6193509;
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SIMILARITY: CONTAINS 1 IQ DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: MUSCLE CONTRACTION.
SUBUNIT: MUSCLE MYOSIN IS A HEXAMERIC PROTEIN THAT CONSISTS OF 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HEAVY CHAIN SUBUNITS (MHC), 2 ALKALI LIGHT CHAIN SUBUNITS (MLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Natl. Acad. Sci. U.S.A. 79:5847-5851(1982)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SM00015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [PR000048;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Methylation; Alkylation; Muitigene family;
                                                                                                                                                                                                                                                                                                                                                   ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10; 1.
          85432 MW;
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                                                                                                                        ALKYLATION (SH-2).
                                                                                                                                                                               ALKYLATION
                                                                                                                                                                                                                          COILED COIL (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                   MYOSIN HEAD-LIKE
          37D8BD7A4B6DEC43 CRC64;
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Query Match

36.8%; Score 50; DB 1; Length 736

PRINTS:

PR00193; MYOSINHEAVY

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Best Local Similarity 45. 
Matches 9; Conservative
pfam; PF00612; IQ; 2.
pfam; PF00063; Myosin_head; 1.
pfam; PF02736; Myosin_k; 1.
pfam; PF02756; Myosin_tail; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   between the Satas institute of Blothstomatics and the Bebl outsation the European Satisformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a lineage agreement (See http://www.lab-sb.ch/announce/or send an email to lineages@absolb.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Characterization and nucleotide sequence of the cardiac alpha-myosin
heavy chain gene from Syrian hamster.";
J. Mol. Cell. Cardiol. 26:1155-1165(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-7UL-1998 (Rel. 36, Last sequence update)
16-0CP-2001 (Rel. 40, Last annotation update)
Myosin heavy chain, cardiac muscle beta isoform (MyHC-beta)
                                                                                                                                                                                    Interpro; IPR004009; Myosin_Laii.
Interpro; IPR002928; Myosin_Laii.
                                                                                                                                                                                                                                                                                                                                                                  EMBL; L12104; AAA62313.1; -.
EMBL; X07273; CAA30256.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SIMILARITY: CONTAINS 1 MYOSIN-LIKE GLOBULAR HEAD DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucieic Acids Res. 16:4737-4737(
-I- FUNCTION: MUSCLE CONTRACTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-88247788; PubMed-3380703;
Jandreski M.A., Sole M.J., Liew C.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-95115033; PubMed-7815459;
Wang R., Sole M.J., Cukerman E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-FiB; TISSUE-Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10036.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mesocricetus auratus (Golden hamster).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P13540; Q60540
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                                                                                                                                                 InterPro: IPR001609; myosin_head
                                                                                                                                                                                                                                                          Interpro: IPR000048; IQ
                                                                                                                                                                                                                                                                                      HSSP; P08799;
                                                                                                                                                                                                                                                                                                                               PIR; A28298; A28298.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 962-1935 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence of cDNA encoding the Syrian hamster cardiac beta-myosin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHARACTERISTIC FOR ALPHA-HELICAL COLLED COILS.
MISCRELLANBOUSE EACH WOSISIN HEAVY CHAIN CAN BE SPLIT INTO 1 LIGHT
MERONYOSIN (LAW) AND 1 HEAVY MERONYOSIN (HHM), IT CAN LATER BE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: MUSCLE WYOSIN IS A HEXAMERIC PROTEIN THAT CONSISTS OF 2 HEAVY CHAIN SUBUNITS (MHC), 2 ANKALI LIGHT CHAIN SUBUNITS (MLC), AND 2 REGULATOR LIGHT CHAIN SUBUNITS (MLC-2).
SUBCELUILAR LOCATION: Thick filaments of the myofibrils.
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        SEQUENCE OF 1-115 FROM N.A.
                                                                              Liew C.-C., Sole M.J., Yamauchi-Takihara K., Keilam B., Anderson D.H., Lin L., Liew J.;
                                                                                                                                                               Jeenicke T., Diederich K.W., Haas W., Schleich J., Lichter P.,
Pfordt M., Bach A., Vosberg H.P.,
"The complete sequence of the human beta-myosin heavy chain gene and
a comperative analysis of its product.";
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                                  Nucleic Acids Res. 18:3647-3651(1990)
                                                    heavy chain gene."
                                                             "Complete sequence and organization of the human cardiac beta-myosin
                                                                                                           MEDLINE-90301496; PubMed-2362820;
                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                    Genomics 8:194-206(1990).
                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=91065634; PubMed=2249844;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                              Myosin heavy chain, cardiac muscle beta isoform (MyHC-beta).
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16-OCT-2001 (Rel. 40, Last annotation update)
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01-OCT-1989 (Rel. 12, C
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PROSITE; PS50096; IQ; 1.
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E -> Q (IN REF.
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ALKYLATION (SH-2) (POTENTIAL).
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Watkins H., Rosenzweig A., Hwang D.S., Levi T., McKenna W.,
Seidmann C.E., Seidmann J.G.;
                                                                     Gelsteffer-Lorance A.A.T., Kass S., Tanigawa G., Vosberg H.-P., KKEnna H. G.; Scilman J. G.; Scilman J. G.; Amolecular basis for familial hypertrophic cardiomyopathy: a beta cardiac myosin heavy Chain gene missense mutation.'; Cell 52:999-1006(1990).
                                                                                                                                                                                    Pananaparir L. Dalakas M.C., Cyran P., Cohn G., Epstein N.D.;
"Missense mutations in the beta-myosin heavy-chain gene cause central
core disease in hypertrophic cardiomypathy.";
Proc. Natl. Acad. Sci. U.S.A. 90:3993-3997(1993).
                          MEDLINE=92204193; PubMed=1552912.
                                           VARIANTS CMH1 GLN-249; GLN-403; CYS-453 AND MET-506
                                                                                                                                              MEDLINE=90367131;
                                                                                                                                                             VARIANT CMH1 GLN-403
                                                                                                                                                                                                                                                    MEDLINE-93248216; PubMed-8483915;
                                                                                                                                                                                                                                                                  VARIANTS CMH1 GLU-256 AND ARG-741.
                                                                                                                                                                                                                                                                                               "Missense mutation of the beta-cardiac myosin heavy-chain gene in hypertrophic cardiomyopathy ", hypertrophic cardiomyopathy ", an. J. Med. Genet. 58:267-276(1995).
                                                                                                                                                                                                                                                                                                                                           Arai S., Matsuoka R., Hirayama K., Sukurai H., Tamura H., Uzumu I.,
Kimura M., Imamura S.-I., furutani Y., Joh-O K., Kawana M., Takao A.,
                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=96039076; PubMed=8533830;
                                                                                                                                                                                                                                                                                                                                                                                                                       Jandress! M.A., Lise C.-C.;
Jandress! M.A., Lise C.-C.;
Construction of a human ventricular cDNA library and
characterization of a beta myosin heavy chain cDNA clone.*;
Bum. Genet. 76:47-53(1987).
                                                                                                                                                                                                                                                                                                                                                                                                     REVIEW ON VARIANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=87192738; PubMed=3032769,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1393-1935 FROM N.A.
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PubMed=1975517;

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myosin neavy chains
                                                               "Identification of three developmentally controlled isoforms of human
                                                                                                                                                                                                                                                                                                                                                                                                                           Kurabayashi M., Tsuchimochi H., Komuro I., Takaku F., Yazaki Y.;
Molecular cloning and characterization of human cardiac alpha- and beta-form myosin heavy Chain complementary DNA clones. Regulation of expression during development and pressure overload in human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     **Characterization of diverse forms of myosin heavy chain expressed in adult human skeletal muscle.**.
Nucleic Acids Res. 14:2951-2969(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEDLINE-89564452; bubWed=2726733; Lew J., Ing D., Liew C.-C.; Yamauchi-Takthara K., Sole W.J., Liew J., Ing D., Liew C.-C.; Characterization of human cardiac myosin heavy chain genes.*; Proc. Natl. Acad. Sci. U.S.A. 86;3504-3508(1989).
                                                                                                                                              Bober E., Buchberger-Seidl A., Braun T., Singh S., Goedde H.W.,
                                                                                                                                                                                             MEDLINE=90235862; PubMed=1691980;
                                                                                                                                                                                                                                                                            SEQUENCE OF 785-1935 FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YamauChi-Takihara K., Sole M.J., Liew J., Ing D., Liew C.-C
Proc. Natl. Acad. Sci. U.S.A. 86:7416-7417(1989).
                                                                                                                                                                                                                                             PISSUE=Skeletal
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J. Blochem. 189:55-65(1990)
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MEZITHE-04075639, Pubbes-0253035;
Dausse E., Komajdo H., Petler I., Dabourg O., Dufour C., Carrier L.,
Mismessly C., Bercovic J., Mengstenberg C., Al-Mohawi S.,
"Smillal Inpertophic entilopypathy, Microsatellite inpolyping and
identification of a not spec for a macations in the beta-myssin heavy Epstein N.D., Cohm G.M., Cyran F., Fananapæzir L.;
"Differences in clinical expression of hypertophic cardiomyopathy
associated with two distinct mutations in the beta: myosin heavy Chain
gene. A 908Leu->Val mutation and a 403Arg-->Oln mutation.*; AnanaR., Grave G., Thiarfelder L., Watkins H., McKenna W., Solomon S., Vecchie C., Shono H., Nakao S., Tanaka H., Mares A. Jr., Towbin J.A., Spirito R., Roberts R., Seidman J.G., Seidman C.E.; Greve G., Beldmakt L., Friedman D.L., Czernuzewicz G., Aman R., Trowlin J., Beldman C.E., Robertz R.;
"isolation of a de moro mutant myceordial beta MHC protein in a pedigree with hypertrophic oudines/pathy.";
hum. Mol. Genet. 3:2037-2035(1944). Al-wholded S. Chemotran S. Childed J., Mihoyamopoulos P.,
Gilligen D., Franch J., Choudhury L., Milliamson R., Okley C.;
"Identification of a matchion in the best cartible myssin heavy chain
gene in a family with hypertrophic cardiomyopathy.";
Br. Heart J. 651134-11714020 Biochem. Biophys. Res. Commun. 194:791-798(1993) Hurdd H., Kimira N., Hishi H., Sasszuki T., Toshima H.; N missense mukstion of cardiace bets myosin beavy Chain gene linked for temailal hypertrophic cardiomyopathy in affected Japanese found in a Japanese patient with hypertrophic cardiomyopathy.": Biochem. Biophys. Res. Commun. 188:379-387(1992). NEDILINE-93038688; PubMed-1417888; Nishi H., Kimura A., Harada H., Toshima H., Sasazuki T.; Novel missense mutation in cardiac beta myosin heavy chain gene "identification of a new missense mutation at Arg403, a CpG mutation hotspot, in exon 13 of the beta-myosin heavy chain gene in hypertrophic cardiamyosathy."

Hum. Mol. Genet. 2:1731-1732(1993). VARIANTS CMH1 LEU-403 AND TRP-403. Circulation 86:345-352(1992). VARIANTS CMH1 GLN-403 AND VAL-908 MEDLINE-92346810; PubMed-1638703; mutations in hypertrophic cardiomyopathy. *. Am. J. Hum. Genet. 53:1180-1185(1993). Warkins H., Thierfelder L., Anan R., Jarcho J., Matsumori A., McKenna H., Seldman J.G., Saldman C.E.; "Independent origin of identical beta cardiac myosin heavy-chain MEDLINE-94070863; VARIANTS CMH1 GLN-403; CYS-453; ARG-584 AND MET-606 "Characteristics and prognostic implications of myosin missense mutations in familial hypectrophic cardiomyopathy."; New Engl. J. Med. 326:1108-1114(1992). MEDLINE-95179132; PubMed-7874131; VARIANT CMH1 TRP-719 VARIANT CMH1 VAL-908 MEDLINE-93343938; PubMed-8343162; VARIANT CMH1 GLY-778 VARIANT CMH1 ASN-615 Moolman J.C., Brink P.A., Corfield V.A.; MEDLINE-94093568; VARIANT CMH1 TRP-403. MEDLINE-94110336: PubMed-8282798; VARIANTS CMH1 CYS-513; ARG-716 AND TRP-719 Clin. Invest. 92:2807-2813(1993). PubMed-8268932 PubMed=8250038

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Query Match
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"A high risk phenotype of hypertrophic cardiomyopathy associated with "A high risk phenotype of hypertrophic cardiomyopathy associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-98204402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No Y.-L., Chem J.-J., Tang T.-K., Chemg J.-J., Lind S.-Y., Lind Y.-C., Kann P.-M. C.-K., Lind Y.-C., Lind C.-C., The C.-K., The C.-K
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myosin heavy chain gene in hypertrophic cardiomyopathy.";
Hum. hutat. 6:197-18(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PubMed=9544842;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=8655135;
45.0%;
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                                                                    Score 50;
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                                                                    DB 1; Length 1935;
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22222

2222332

Job time: 204 sec Search completed: July 15, 2002, 12:49:43 8

663 RSTHPHEVRCIIPNETKSPG 682

2 RVTHPHLPKDIVRSIAKAPG 21 Similarity Conservative

Matches

4; Mismatches Pred. No. 33;

7; Indels

0 Gaps

Local

59 54 54 55 56 57 58 59 59 59 59 59 59 59 59 59 59	pred. N score g and is and is	Database :	Post-processing:	Minimum DB seq Maximum DB seq	Total number of	Scoring table:	Title: Perfect score: Sequence:	Run on:	OM protein - pro		•
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OSDS44 gindlymosto OSMS55 Cyrclolagus OSMS56 Cyrclo	by chance to have a the result being printed, re distribution. Description				562222			time 25.08 Seconds chout alignments) .443 Million cell updates/sec		4.5 Compugen Ltd.	

ALIGNMENTS

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SEQUENCE 684 AA; 75224 MW; ZEP9DZU71CDAGDED CRCGW;	č	T I		PROSITE: PS00290; IG_MHC; UNKNOWN_3.	SM00410; IG_11ke; 2	IGCL; 4.	9, 6.	03006;		03597;	ZMCG.	EMBL; U18701; AAB48195.1;	Nature 374:168-173(1995).	extensive somatic diversification in sharks.";	"A new antigen receptor gene tamily that undergoes rearrangement and		Greenberg A.S., Avila D., Hughes M., Hughes A., MCKinney E.C.,		TISSUE-SPLEEN;	SEQUENCE PROM N.A.	(L)	NCBI_TaxID=7801;	Ginglymostomatidae; Ginglymostoma.	Elasmobranchii; Galeomorphii; Galeoidea; Orectolobitormes;	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Giodulicionyes;	cirratum (Nurse shark).	NOVEL ANTIGEN RECEPTOR PRECURSOR.	PrEMBLrel.	(TrEMBLrel. 01,	01-NOV-1996 (TEMBERGEL OL, Creaced)		Q90544 PRELIMINARY; PRI: 000 AA.		LT 1	

Query Match 43.4%; Score 59; DB 13; Length 684; Best Local Similarity 50.0%; Pred. No. 2.4;

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OR REAR RANGERS RECORD
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                            Micrama Kor., Poliblym T.V., Labb M.T., Paulson L.T., Malson K.E.,
Elsen J., Michelberg J.F., Alley R.K., Otta M., Maddock J.R.,
Dedoy M. T., Daddon M.C., Marcon A., Stephens C., Paulse M.D., Els R.
Kolony J.F., Sall J. Craven M.B., Moutl H.J., Micray K.
Kolony J.F., Sall J. Craven M.B., Moutl H.J., Micray K.
Goldon J.F., Tran K., Molf A., Vanachevan J., Ernolavo M., White O.,
Complete Service Microsoft C., Sallary J., France C.H.;
Complete Service Microsoft S. M. Sellas-(141/2009) U.S.,
Perfor. Natl. Aced. Sci. U.S.A. 98:4136-(141/2009) U.S.,
Perfor. Natl. Aced. Sci. U.S.,
Perf
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01-JUN-2001 (TIENBLIE). 17, Last sequence update)
01-DEC-2001 (TIENBLIE). 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                     MEDLINE-21173698; PubMed-11259647;
                                                                                                                                                                                                                                                                                                                                                       STRAIN-ATCC 19089 / CB15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Caulobacter crescentus
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*Patterns of ion channel expression in cardiac hypertrophy.*,
Submitted (JUN-2000) to the BMBL/GenBank/DDBJ databases,
EMBL; AJ291317; CAB94849.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HSSP; P13538; 2MYS
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Ol-OCT-2000 (TrEMBLrel. 15, Last seq
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           CC0564; -.
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(TrEMBLrel. 19, Last annotation update)
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09K9R8; O1-CCT-2000 (TERMBLEE1. 15, Created)
01-CCT-2000 (TERMBLEE1. 15, Last sequence of the control of terms of terms of the control of terms of
                                                                                                                                                             BH2577 PROTEIN
                      NCBI_TaxID=86665;
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SEQUENCE 197 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                           177 LAHPALAQAAVRALARIPGQR 197
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Hypothetical protein; Complete proteome.
SEQUENCE 273 AA; 29461 MW; C1C6D2FB7E432082 CRC64;
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4 THPHLP--KDIVRS----IAKAPGKRAP 25 Score 52; Pred. No. 9 Mismatches DB 16: Length 273, Indels 10; Gaps

PRT; 197 AA

01-MAY-1999 (TYEMBLrel. 10, Created)
01-MAY-1999 (TYEMBLrel. 10, Last sequence update)
01-MAY-1999 (TYEMBLrel. 10, Last annotation update) HYPOTHETICAL 21.1 KDA PROTEIN.

Bactería; Firmicutes; Actinobactería; Actinobacteridae;

Actinomycetales: Streptomycineae: Streptomycetaceae: Streptomyces

Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases

Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases , Barrell B.G., Rajandream M.A.;

MEDLINE-97000351; PubMed-8843436; Redenbach M., Kieser H.M., Denapaite D., Eichner A., Cullum J.,

the 8 Mb Streptomyces coelicolor A3(2) chromosome.*; Nol. Microbiol. 21:77-96(1996).
EMBL; AL035161; CAA22724.1; -. Kinashi H., Hopwood D.A.;

A set of ordered cosmids and a detailed genetic and physical map for

21061 MW; 6ABC3643C5570AC1 CRC64,

Score 51; DB 2; Length 197 Pred. No. 9.7; Mismatches

Gaps

538 AA.

Last annotation update) Last sequence update;

Bacillus halodurans.
Bacitlus/Glostridium group:
Bacillus/Staphylococcus group: Bacillus.

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OC PERSON
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STRAIN=C-125 / JCM 9153;
HEDLINE-20512582; PubMed-11058132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   halodurans and genomic sequence comparison with Bacilius subtilis.'; Nucleic Acids Res. 28 4317-433(2000). BBGL; APO01516, BABG296.1; -
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Euji F., Hirama C., Nakamura Y., Ogasawara N., Kuhara S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-2000 (TIEMBLIel. 13, Created)
01-MAY-2000 (TIEMBLIel. 13, Last sequence update)
01-DEC-2001 (TIEMBLIel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE 538 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human).
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       *Complete genome sequence of the alkaliphilic bacterium Bacillus
di-wavi-goo (freguent.) 13. Gested)
01-wav-2000 (freguent.) 13. Less sequence update)
01-wav-2000 (freguent.) 13. Less sequence update)
01-wav-2000 (freguent.) 13. Less sequence update)
801 wave the consens (for the consens the consens of the consens (for the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            heavy chain gene.";
Hum. Genet. 81:214-220(1989)
EMBL; M27636; AAA79019:1; -.
HSSP; P13538; 2MYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Diederich K.W., Eisele I., Ried T., Jaenicke T., Lichter P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-89154425; PubMed-2522082;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BETA-MYOSIN HEAVY CHAIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 431 QIRHSHKPIKDLAEQIGETPGKLA 454
                                                                                                                                                                                                                                                                                                                                                               Q9TSU6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00063; myosin_head: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *Isolation and characterization of the complete human beta-myosin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                            OPTSU6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProDom; PD000355; myosin_head; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 RSTHPHFVRCIIPNETKSPG 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 RVTHPHLP-KDIVRSIAKAPGKRA 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            538 AA; 62270 MW; 470E31DE2FC0C507 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      68 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7890 MW; B58C9D8951B4D1C2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               45.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37.1%; Score 50.5;
41.7%; Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 4.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                797 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length 68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 16; Length 538;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R R R R R R R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            028699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Paum: PRODOES; myosin head; 1.
PRIMES; PRODOES; MYOSINERENY
PRIMES; PRODOES; MYOSINERENY
PRODOES; PRODOES; MYOSIN, head: 1.
SANRT; SHOOLS; TO; 1.
PROSETTE; MYOSIT; MYOS; 1.
PROSETTE; MYOSIT; MYO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cardiac beta myosin heavy chain gene.";
Anim. Genet. 31:231-231(2000).
BMBL: AF008572; AAD51477.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID-9685;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Nine polymorphisms within the head and hinge region of the feline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Meurs K.M., Kittleson M., Spangler E., Ware W.A., Womack J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-20353874; PubMed-10895319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oryctolagus cuniculus (Rabbit).
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     028699;
01-MVY-1996 (TIEMBLEE1. 01, Created)
01-MVY-1996 (TIEMBLEE1. 01, Last sequence update)
01-DEC-2001 (TIEMBLEE1. 19, Last uncestion update)
BETM CARDIAC MYOSIN HEAVY CHAIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                028699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00612; IQ; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Interpro; IPR001609;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR000048; IQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                           TISSUE-SKELETAL MUSCLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            486 RSTHPHFVRCIIPNETKSPG 505
                                                                                                                                                                                                                  Jaenicke T., Goldspink G.;
"unpublished.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalia; Euthería; Lagomorpha; Leporidae; Oryctolagus.
                                                                                       SEQUENCE OF 57-809 FROM N.A.
                                                                                                                                                              Submitted (JUN-1994) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID-9986
                                                                                                                                                                                                                                                                                                 ISSUE-SKELETAL MUSCLE
                                                                                                                                                                                                                                                                                                                                                      EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
hes 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            La Régional J. MOSTATT ; JOHED
La Régional J. MOSTATT ; JOHED
La Régional J. MOSTATT ; JOHED
LA RÉGIONAL MOSTATT ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AF008570; AAD51477.1; JOINED
AF008571; AAD51477.1; JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AF001618; AAD51477.1; JOINED
AF001619; AAD51477.1; JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          U93854; AAD51477.1; JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR001609; myosin_head
IPR000533; Tropomyosin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               797
797 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36.8%; Score 50; DB
45.0%; pred. No. 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91530 MW; 60DD585187328C34 CRC64;
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PRT; 1038 AA

Mismatches

9 Gaps

0;

DB 6; Length 797; 7; Indels

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SO DE RECEIVA DE LA COMPANSIONE DEL COMPANSIONE DE LA COMPANSIONE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RT DR 
                                                                                                                                                                                 ToterFo; IFR001609; myosin_head
InterFo; IFR001909; Myosin_kall
InterFo; IFR001999; Myosin_kall
IFRam; PF000199; Myosin_heil; 1
IFRam; PF001706; Myosin_kall; 1
IFRAM; PF001705; Myosin_bead; 1
IFRAM; SM00112; MYS; 1
INDERT; SM00112; MYS; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                 PROSITE; PS50096; IQ;
SRQUENCE 1935 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wendel B., Reinhard R., Wachtendorf U., Zacharzowsky U.B
Osterziel K.J., Korano I., Hoehe M.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Genomic DNA Sequence variation of the human beta-myosin heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro: IPR000048; IQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP; P08799; 1MND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID-9606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BETA-MYOSIN HEAVY CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS50096; IQ: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProDom;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00063; myosin_head; 1.
Pfam; PF01576; Myosin_tail; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro: IPR001609; myosin_head
InterPro; IPR002928; Myosin_tail
InterPro: IPR000533; Tropomyosin
Piam; PF00612; IQ; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kavinsky G.J., Umede P.K., Levin J.E., Sinha A.M., Nigro J.K.,
Deboycic S. Bebinoeitz H.J.
"Analysis of cloned mNNA sequences encoding subfragment 2 and part of
subfragment 1 of alpha- and beta-myosin heavy chains of rabbit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300 RSTHPHEVRCIIPNETKSPG 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR000048; IQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSSP; P08799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; 234886; CAA84369.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-84135762; PubMed-6321481;
Kavinsky C.J., Umeda P.K., Levin J.E., Sinha A.M., Nigro J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AJ238393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PR00193; MYOSINHEAVY,
PR00194; TROPOMYOSIN,
PD000355; myosin_head; 1,
SM00015; IQ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1038 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1038
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        UNMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAC20413.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         259:2775-2781(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T038
                                                                                                                 223100 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36.8%; Score 50; DB 6; Length 1038; 45.0%; Pred. No. 77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120160 MW; AC8A4EB34BE76A56 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q -> H (IN REF. 0,0,2 AND 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT; 1935 AA
                                                                                                          317FD7E7B277C972 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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                     10 09 BE39
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Chikuni K., Muroya S., Nakajima I.;
"Sequencing of the bovine myosin heavy chain isoforms.";
                                                                                     SEQUENCE FROM N.A.
STRAIN-HOLSTEIN: TISSUE-SKELETAL MUSCLE,
                                                                                                                                                                                                                                                        Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
MYOSIN HEAVY CHAIN SLOW.
                                                                                                                                                                                                       NCBI_TaxID=9913
                                                                                                                                                                                                                                                                                            Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                              BOS taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                        MXHC-SLOW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9BE39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        663 RSTHPHFVRCIIPNETKSPG 682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 RVTHPHLPKDIVRSIAKAPG 21
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Bovinae; Bos.

PRELIMINARY;

PRT;

1935 AA

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Best Local Similarity
                                                     Query Match
                                                                                                             SEQUENCE
                                                                                                                         SMART; SM00015; IQ; 1
SMART; SM00242; MYSC; 1
PROSITE; PS50096; IQ; 1
                                                                                                                                                                                                     Pfam: PF00063; myosin_head; 1.
Pfam: PF02736; Myosin_tal; 1.
Pfam: PF01576; Myosin_tal; 1.
PRINTS: PR00193; MYOSINHEAVY
                                                                                                                                                                                                                                                                                                                                                                                       Chikuni K., Muroya S., Nakajima I.;
"Sequencing of the percine myosin heavy chain slow isoform.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                              ProDom; PD000355; myosin_head; 1
                                                                                                                                                                                                                                                                                InterPro;
                                                                                                                                                                                                                                                                                                                          InterPro;
                                                                                                                                                                                                                                                                                                                                             interpro;
                                                                                                                                                                                                                                                                                                                                                            EMBL: AB053226; BAB20630.1; -. HSSP; P08799; 1MND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-LANDRACE; TISSUE-SKELETAL MUSCLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; NCBI_TaxID-9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sus scrofa (Pig)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MARC-STOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           UI-MAR-2001 (TIENBLEEL 16, Last sequence update)
01-DEC-2001 (TIENBLEEL 19, Last annotation update)
MYOSIN HEAVY CHAIN SLOW ISOFORM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-2001 (TrEMBLrel. 16, Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                             IPR004009; Myosin_tail
                                                                                                                                                                                                                                                                                                                                      IPR000048; IQ.
                                                                                                                                                                                                                                                                                                                          IPR001609;
                                                                                                             1935 AA;
               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
35.8%; Score 50; DB 6; Length 173.
45.0%; Pred. No. 1.5e+02;
45.44 **Matches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36.8%;
45.0%;
                                                                                                      223297 MW; 270556D9A3E86C4A CRC64;
                                                                                                                                                                                                                                                                                                                      myosin_head
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 50; DB 4; Length 1935;
Pred. No. 1.5e+02;
4; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1935 AA
                                             Length 1935;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi:
       ..
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       Gaps
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SPERRARANSOSBURG
                   288825
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Best Local
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E InterFro; PR001609; myosin, hodd.
E InterFro; PR001609; myosin, e.i.i.
E France PR00176; myosin, e.i.i.
E France PR01776; myosin, e.i.i.
E SAMETE, S000161; Myosin, e.i.i.
E SAMET
                                                                                                                                                         01-UN-2001 (TEMBLICE). 17, Created)
01-UN-2001 (TEMBLICE). 17, Last Sequence update)
01-DEC-2001 (TEMBLICE). 19, Last senoctation update)
SIMILAR TO RIKEN CDNA 1810060009 GENE.
                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                      Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                      099131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus ausculus (Mouse),
Bukaryota: Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Mommalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBL_TexID-10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                   SEQUENCE FROM N.A.
                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                             663 RSTHPHFVRCIIPNETKSPG 682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AY056464; AAL17913.1; -. SEQUENCE 1935 AA: 222878 MW; 08CDD03573B10CF0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the Heart."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gulick J.D., Robbins J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BETA MYOSIN HEAVY CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                091283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               interPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSSP; P08799; 1MND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases EMBL; AB059400; BAB40922.1; .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        663 RSTHPHFVRCIIPNETKSPG 682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 45.0%; Score 50; DB 11; Length 1935; hes 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       In Vivo Examination of Myosin Heavy Chain Isoform Functionality in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 RVTHPHLPKDIVRSIAKAPG 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IPR000048; IQ
                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36.8%; Score 50; DB 6; 45.0%; Pred. No. 1.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT; 1935 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                      468 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ), 1.5e+02;
---has 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1935;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
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                                                                                 091205
                                                                                                         RESULT 15
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Best Local Similarity 46.2
12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00047: ig; 4.
SMART; SM00409; iG; 2.
SMART; SM00407: iGc1; 3.
SMART; SM00406; iGc; 1.
SMART; SM00406; iGc; 1.
SMART; SM00406; iGc; 1.
SMART; SM00400; iGc; ide; 1.
Q91Z05 PRELIMINARY; PRT;
Q91Z05;
Q1-DEC-2001 (TrEMBErel. 19, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q99L25;
                                                                                                                                                                                                                                                                                                                                                                                      SAMARY: SMOOMO7; 1061; 3.
SMARY: SMOOMO7; 1061; 3.
SMARY: SMOOMO1; 106,146; 1.
SMOATT: SMOOMO1; 106,146; 1.
SMOOTENCE 473 AA; 52449 MM; BE988987986DA155 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-UN-2001 (TIEMBLEEL 17, Created)
01-UN-2001 (TIEMBLEEL 17, Last sequence update)
01-USC-2001 (TIEMBLEEL 17) Last sequence update)
SIMILAR TO RIKEN COMA 1810066009 GENE.
                                                                                                                                                                            347 CKVNNKALPAPIERTISKPKGSVRAP 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00047; ig; 4. SMART; SM00409; IG; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; PU1842; 7FAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; BC003888; AAH03888.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Strausberg R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota: Wetazoa: Chordata: Craniata: Vertebrata: Euteleostomi;
Mammalia: Eutheria: Rodentia: Sciurognathi: Muridae: Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q99L25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              342 CKVNNKALPAPIERTISKPKGSVRAP 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Interpro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP; P01842; 7FAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; BC003878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R.;
                                                                                                                                                                                                                            1 CRVTHPHLPKDIVRSIAKAPGK-RAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 46.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CRVTHPHLPKDIVRSIAKAPGK-RAP 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IPRU03597; Ig_c1.
IPR003600; Ig_like.
IPR003006; Ig_MHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IPR003600; Ig_NHC.
IPR003596; Ig_NHC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPR003597;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IPR003599; Ig.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      468 AA; 51661 MW; 96352328B3332ADB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR003599; Ig.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAH03878.1; -.
                                                                                                                                                                                                                                                                                               36.4%; Score 49.5;
46.2%; Pred. No. 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ig_cl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UNKNOWN_1
                                                                                                                                                                                                                                                                            4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 49.5;
Pred. No. 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                    4/3 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      473 AA
                                                                                                                                                                                                                                                                                                    40
                                                                                                                                                                                                                                                                                                                            DB 11; Length 473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 11; Length 468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9;
                                                                                                                                                                                                                                                                            Indels
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TO 01-08C-2001 (TETROLICAL 13) Last sequence update)

DT 01-08C-2001 (TETROLICAL 13) Last canonical update)

EN PROPRIETICAL 51.3 KGA PROTEIN.

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